INTERACTIONS AMONG COLLEGE AND UNIVERSITY FACULTY AND STUDENTS INVOLVED IN ACADEMIC STUDENT ORGANIZATIONS: AN ANALYSIS OF QUALITATIVE AND QUANTITATIVE ENGAGEMENT

A Dissertation

by

PEGGY CAROL HOLZWEISS

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2010

Major Subject: Educational Administration

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Approved by:

Co-Chairs of Committee,	Bryan Cole
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Committee Members,	Fred Bonner
	Richard Woodman
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ABSTRACT

Interactions among College and University Faculty and Students Involved in Academic Student Organizations: An Analysis of Qualitative and Quantitative Engagement.

(August 2010)

Peggy Carol Holzweiss, B.S., Texas A&M University; M.S., Texas A&M University

Co-Chairs of Advisory Committee: Dr. Bryan Cole
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The purpose of this study was to describe what kind of student-faculty interactions are occurring in the context of academic student organizations as well as identify the quality and quantity of such interactions and what factors are involved with meaningful interactions. The study also determined how these interactions might differ from those occurring in other college activities and how the factors of classification, organizational status, and institutional size relate to quality and quantity of interactions in both contexts.

An instrument was developed for the study using all student-faculty interactions identified by previous researchers. A total of 104 undergraduate students from four different institutions responded to the instrument. All were members of an academic student organization.

Results indicated that almost all of the students had faculty advisors for their organizations. In addition, 99% of participants had at least one interaction with faculty since they started college. Another 81% had at least one interaction with faculty within

their academic student organization, and 96% had at least one interaction with faculty within their other college activities. Over three-quarters (78%) said they had interactions with faculty in both their academic student organization and other college activities.

Interactions were found to occur but were infrequent overall and did not differ significantly between academic student organizations and other college activities. However, there was a trend for participants to have a higher quantity of interactions within their organizations than through other activities. Most of the interactions reported by participants lasted longer than 10 minutes, which was the standard by which some researchers measured quality.

For institutional size, a pattern of responses indicated that participants from small institutions may have a higher quality and quantity of interactions with faculty than their peers from large institutions.

Whether or not a student served as a member or a leader in their academic student organization did appear to impact the interactions they had with faculty. Leaders reported more interactions with faculty in their organizational context than did members.

DEDICATION

TO:

All three of my boys – Bob, Nick, and Jake.

You are my inspiration, my support, and my life.

We go together like PB-N-J.

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I would like to thank both of my committee chairs - Dr. Bryan Cole and Dr. Kelli Peck Parrott. Dr. Cole, you provided many words of wisdom and an abundance of knowledge for this process. I always knew where I stood and what I needed to do to accomplish the necessary tasks. Thank you for taking so much time to meet with me and provide feedback on whatever I was doing. Dr. Peck Parrott, you were an endless source of encouragement and support and I would not have been able to make it through the program without you. I am delighted to call you a mentor and a friend.

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emails that it took to get me here. Know that I am up for returning the favor through your own doctoral processes.

To my mom, Ruth Philpot, who never stopped telling me how proud she was of me. I have never forgotten whose daughter I am, and I am proud to let people know.

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CHAPTER I

INTRODUCTION

Background

According to Burke (2004), American society once trusted institutions of higher education to provide a quality education to citizens from all parts of the population. Financial support flowed without question as to how the money was being spent. Citizens and politicians expected institutions to spend the money on enhancing the quality of education and creating productive citizens but rarely asked for proof that these outcomes actually occurred. This social contract began to show signs of strain in the 1970s because of an economic recession. As financial revenues tightened, state governments started controlling the monetary support provided to higher education and demanded more accountability regarding how money was being spent and the benefits of that spending. In addition, financial support began shifting from higher education to other public services and caused higher education to begin competing for funds.

During the 1980s, a report called *A Nation at Risk* criticized the nation's public schools for not providing a quality education to students (Burke, 2004). All levels of education responded to the report by establishing goals and objectives for what students would learn at their institutions or within their systems. The state governments, in turn, started holding the schools accountable for the processes created to meet those goals and

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This dissertation follows the style of the *Journal of Higher Education*.

objectives. This approach moved into the 1990s as a way to control the goals of an institution but still allow flexibility in how those goals were achieved.

In the current decade, the slowing economy and increasing financial burden on the state and federal governments has amplified concerns for how taxpayer funds are being spent and what is achieved as a result of those funds. In addition, higher education is increasingly being seen as more of a private rather than public benefit and government funding is shifting away from higher education and into direct public benefits such as health care and elementary education (Burke, 2004).

Constituents of higher education – students, parents, alumni, businesses, state governments, federal government – generally want a college education to mean that graduates will become productive members of society, increase their knowledge, obtain well-paying jobs, contribute to a stable economy, and develop practical life skills (Arnold & Kuh, 1999; Ewell, 1991). However, institutions are regularly challenged to do more to enhance these developmental outcomes while experiencing decreases in their financial support (Kuh, 1996; Massy & Zemsky, 1994).

As calls for accountability grow and government funding declines, institutions must compete for and retain students, especially highly qualified, paying students who can contribute to the overall reputation of the institution as well as provide a steady stream of income. On a basic level, the more students an institution can put in a classroom, the more money it has to conduct educational business and compete with other institutions to attract more students (Nadler & Nadler, 2001). However, students

have many choices regarding where they pursue their college education. One way institutions compete for students is by increasing the reputation of the faculty. Faculty may be hired because they are well-known researchers in their academic discipline or the institution may demand an increase in research productivity and scholarly publications from existing faculty in order to increase the academic reputation of the department or college. By obtaining faculty members who are viewed as the best in their field, institutions can promote the idea that they provide a high quality education in return for the dollars being spent on it.

Unfortunately, with the focus on research and academic reputations, faculty members feel pressure to build their scholarly portfolios, sometimes to the detriment of other activities. Massy and Zemke (1994) call this the "academic ratchet" (p. 2). As the pressure to conduct research builds, other activities the faculty might have found fulfilling and productive must be set aside. This has the unintended consequence of faculty trying to decrease their teaching loads, institutional service, and meaningful interactions with students just to keep up with the demands of research. Altbach (2005) described additional pressures such as economic problems forcing publishers and grant foundations to cut back on opportunities for research. This increases the academic ratchet because faculty, especially those seeking tenure, must now spend even more time trying to achieve the feats of scholarly works that are expected to move along the tenure ladder. As faculty focus more on research and other administrative responsibilities, the potential for student learning decreases because faculty do not have the time to devote to this important endeavor (Nadler & Nadler, 2001). And some faculty who do set aside

time to interact with students may be viewed as neglecting their responsibilities (Golde & Pribbenow, 2000).

Complicating the issue beyond the ratchet, several scholars have demonstrated that faculty are working harder than ever. For instance, as budgets are cut, departments hire more part-time faculty in order to save money on salaries and benefits. However, as the numbers of part-time faculty increase, the number of full-time faculty decreases. This, in turn, limits the number of faculty available to participate in governance bodies, administrative committees, and curriculum development (Anderson, 2002). These responsibilities are in addition to the traditional teaching and research activities required of faculty. The result is that a typical faculty member works an average of 50 or more hours per week (Jacobs, 2004), teaches approximately four classes per academic semester, holds an average of seven office hours per semester, and writes approximately twelve scholarly publications (e.g., books, articles, reviews, etc.) over two years (Anderson, 2002). One national study concluded that only a small portion of faculty were able to excel at both teaching and research responsibilities simultaneously (Fairweather, 2002).

The report *Learning Reconsidered* encouraged institutions to reestablish student learning as the central mission of higher education and begin integrating classroom learning with student development processes (Keeling, 2004). Boyer (1987) explains that students want to learn more about themselves while attending college. They are motivated to understand how their college education will impact them after graduation and how they can best find a job that meets their personal goals and interests. This

motivation can provide part of the requirements needed to create informal learning opportunities but institutions need to provide the organizational structure necessary to encourage learning in this manner. Terenzini, Pascarella, and Bliming (1996) recommend that institutions "blur the boundaries between students' academic and out-of-class lives" by creating opportunities that can "promote academic or cognitive development" (p. 158).

As Kuh, Kinzie, Schuh, and Whitt (2005) explained, "Good things go together. Once students engage in a meaningful way with something that excites them, doors to other educationally purposeful activities often open up, and students discover that being in college is the single best place for them to be" (p. 269). Scholars recommend that institutions find ways to bring students and faculty together to create meaningful experiences that could lead to learning (Arnold & Kuh, 1999; Kuh, Palmer, & Kish, 2003; Skipper & Argo, 2003). Terenzini and Pascarella (1980) explained that "faculty members are traditionally viewed as role models who, intentionally or not, serve to acculturate students into the world of ideas" (p. 521).

Researchers consistently demonstrate that when faculty do have time to interact with students outside of the classroom, the interactions can be very powerful (Astin, 1993; Chickering & Gamson, 1987; Clark, Walker, & Keith, 2002; Cotten & Wilson, 2006; Feldman & Newcomb, 1969; Kuh, 1995; Light, 2001; Pascarella & Terenzini, 1998, 2005; Pascarella, Terenzini, & Wolfe, 1986; Terenzini & Pascarella, 1980; Terenzini, Theophilides, & Lorang, 1984a; Tinto, 1975), especially those that are

friendly, personal, and address a variety of issues important to the student (Endo & Harpel, 1982).

For instance, as a result of their interactions with faculty, students improve academic abilities and skills (Cotten & Wilson, 2006; Endo & Harpel, 1982; Kuh, 1995; Pascarella & Terenzini, 2005); academic performance (Anaya & Cole, 2001; Cotten & Wilson, 2006; Kuh, 1996; Romanski, 1987); self-confidence (Cotten & Wilson, 2006; Kuh, 1995; Plecha, 2002; Sax, Bryant, & Harper, 2005); persistence in college (Kuh, 1995; Pascarella & Terenzini, 1979b; Pascarella & Terenzini, 1980b; Romanski, 1987; Sax, et al., 2005; Tinto, 1975); cognitive and emotional development (Halawah, 2006; Milem & Berger, 1997; Pascarella, Duby, Terenzini, & Iverson, 1983; Pascarella & Terenzini, 1980b); career and personal skills (Endo & Harpel, 1982; Pascarella & Terenzini, 2005; Sax, et al., 2005; Strayhorn, 2008); inclination for attending graduate school (Pascarella & Terenzini, 2005; Romanski, 1987; Sax, et al., 2005); attitudes and interests (Thompson, 2001); and overall satisfaction with the college experience (Astin, 1993; Cotten & Wilson, 2006; Endo & Harpel, 1982; Kuh & Hu, 2001; Lamport, 1993; Pascarella & Terenzini, 2005; Romanski, 1987).

Researchers also have demonstrated that informal interactions with faculty have a greater impact on students than formal interactions because they are outside of the normal contextual environment (Endo & Harpel, 1982). While college students report minimal interactions with faculty (Anaya & Cole, 2001; Cotten & Wilson, 2006; Fusani, 1994; Hagedorn, Maxwell, Rodriguez, Hocevar, & Fillpot, 2000; Jaasma & Koper, 1999; Lewallen, 1995; Nadler & Nadler, 2001; Snow, 1973; Wilson, Woods, & Gaff,

1974), the ones that do occur are typically associated with a student's major (Alderman, 2008; Iverson, Pascarella, & Terenzini, 1984) or "some special group or activity that brings them into directed and intense one-on-one contact with faculty outside the classroom" (Cotten & Wilson, 2006, p. 498).

One possible solution for bringing students and faculty together outside the classroom is by utilizing existing student organizations as a venue. Many academic departments and colleges have student organizations designed to further the knowledge and skill acquisition of a specific discipline or set of disciplines. Students who participate in these organizations have opportunities to attend lectures; discuss various career paths; understand what is required to be successful in their disciplines; and network with peers and others who share their academic and career interests (Holzweiss, Rahn, & Wickline, 2008).

Students agree that "having faculty members involved in student organizations and clubs" would be a good way of encouraging the two parties to interact (Alderman, 2008, p. 75) while some report that they are already interacting with faculty in the context of student organizations (Lohr, 2004). A few researchers (Bean & Kuh, 1984; Pike, 1999; Skipper & Argo, 2003) have found that students who participate in campus organizations are more likely to interact with faculty than students who do not participate in organizations. In addition, the interactions usually center on goals for the future such as career plans and graduate school (Alderman, 2008). These are the same topics that are covered in academic student organizations so there may be a natural

connection that can be made between faculty and students who are involved in these groups.

In general, involvement in organizations has been shown to contribute a variety of positive outcomes for students such as an increase in skill development for critical thinking (Hernandez, Hogan, Hathaway, & Lovell, 1999; Pascarella & Terenzini, 2005), public speaking (Astin, 1993), leadership skills (Astin, 1993), and interpersonal communication (Astin, 1993; Hernandez, et al., 1999; Moore, Lovell, McGann, & Wyrick, 1998); an increase in career-related skills (Pascarella & Terenzini, 2005), psychosocial development (Foubert & Grainger, 2006; Stanford, 1992), intellectual development (Graham & Gisi, 2000), and self-confidence (Huang & Chang, 2004); a sense of community among students (Kuh, et al., 2005); overall satisfaction with college (Astin, 1993); an increase in college persistence (Astin, 1999; Pascarella & Terenzini, 2005; Tinto, 1975); and an increase in the likelihood that students will graduate (Kuh, et al., 1991) and seek additional educational opportunities (Moore, et al., 1998).

Statement of the Problem

While interactions with faculty and involvement in campus organizations are separately recognized as contributing to student development and learning, very few studies have examined whether or not combining the two activities has an impact (Kuh & Hu, 2001; Volkwein, King, & Terenzini, 1986). And no existing literature situates student-faculty interactions in the context of academic student organizations. This descriptive study will determine whether or not student-faculty interactions are occurring in the context of academic student organizations as well as identify the quality and

quantity of such interactions and what factors are involved with meaningful interactions. It is hypothesized that when specific student-faculty interactions are explored within academic student organizations, the findings will reveal that there are both quantity and quality interactions occurring.

By situating faculty in their own academic disciplines with students who are interested in the discipline, both parties might be motivated to interact more and therefore increase the quantity and quality of interactions that can lead to student learning. The overall result could be that students better understand their chosen disciplines; students would be motivated to pursue graduate degrees; the reputation of the faculty would increase because of the time dedicated to helping students learn their disciplines in and out of the classroom; companies would want to hire graduates who exhibited a greater understanding and level of experience in their disciplines; and the academic departments and institution would gain a reputation for providing a quality education that equates to graduates finding good jobs. This cycle could prove, at least in one way, that a college education has value to those who share the costs for it.

Significance of the Study

This study will improve upon previous research in four main ways. First, this study examines the context of one type of student organization rather than treating involvement as a universal set of outcomes. Second, this study defines new types of student-faculty interactions occurring on modern college campuses that have been overlooked in many existing investigations. Third, this study compares a small number of institutions in detail rather than combining a large number of institutions from a

national database on general outcomes. And fourth, this study creates a new way of defining the quality and quantity of student-faculty interactions.

The first area of improvement over previous research is isolation of one type of student organization. Very few studies have examined interactions between faculty and students in campus organizations. While these studies found a minimal quantity of interactions and limited impact on student learning and development (Kuh & Hu, 2001; Volkwein, et al., 1986), the researchers also failed to consider an important detail that could have impacted the findings – the specific context of the student organizations. Instead, they, along with most existing research conducted on student organizations, treat involvement as a broad activity that equates to the same outcomes for all students in all organizations; an observation also noted by Pascarella and Terenzini (1991).

Modern institutions of higher education have a wide range of student organizations with differing missions and goals. According to Chickering and Reisser's Seven Vectors theory of development (1993), students develop a sense of purpose that causes them to select activities that will benefit them in some way such as making friends, participating in community service, or learning about a career. Some scholars (Beeny, 2003; Gellin, 2003) suggest that research needs to individually examine the variety of organizations available because students select them for diverse reasons.

Academic student organizations, out of all of the other types of organizations available to students, have a direct relationship with career development and scholarly practices. Students are motivated to join these organizations in order to experience the benefits they offer. A study using data from the National Survey on Student

Engagement (NSSE) (Sarraf, Johnson, Davis, & Ahren, 2008, March 31) explored opinions of the benefits and detriments of being involved in organizations. The subjects were students involved in different types of student organizations (e.g., academic, service, religious, governance, Greek, housing) across the country. The researchers found that students involved exclusively in academic student organizations, compared to students involved exclusively in the other types organizations, were the least likely to agree that organizations "are for pure enjoyment" and were the most likely to agree that organizations "enhance my academic work" and "will enhance my resume and make me look more attractive to future employers."

In addition, Holzweiss, Rahn, and Wickline (2008) demonstrated that students who chose to join academic organizations (i.e., those associated with an academic department or college) did so because of a future orientation. These students sought academic organizations to help them learn more about their chosen careers; network with other students pursuing similar careers; and participate in activities that would help them find a job in their field after graduation. They also reported benefiting from the organizations by learning about academic resources; further clarifying concepts learned in class; and having a constant reminder of the future goals they wanted to achieve. It is interesting to note that the majority of these students had a junior or senior classification. Chickering and Reisser's development theory (1993) explains that students become more focused on career-related goals as they develop a purpose for their lives so it would make sense that students become more focused on their professional development the closer they get to graduation (Arminio & Loflin, 2003).

By comparison, students who joined non-academic organizations (i.e., those not associated with an academic department or college) did so because of a present orientation (Holzweiss, et al., 2008). These students sought non-academic organizations to help them meet current goals such as making friends, practicing hobbies, and engaging in fun activities that could distract them from their academic responsibilities. The classifications for these students were equally proportioned among all four groups – freshmen, sophomores, juniors, and seniors – lending credibility to the idea that academic organizations may attract students who are getting closer to graduation.

The present study will build upon previous research that has explored academic student organizations and take it one step further to discover what kinds of interactions students in those organizations have with faculty members. One researcher (Alderman, 2008) found that student-faculty interactions were occurring in student organizations and that most of the organizations that provided these interactions were related to academic disciplines. If there are interactions occurring between students and faculty in campus organizations, the most likely place to find them would be within those focused on an academic purpose.

The second way this study will improve on previous research is by clarifying what kind of interactions now may be occurring between students and faculty on a modern college campus. Most of the existing research uses generic statements such as how often students "met informally with faculty to help resolve a personal problem" to define the types of interactions that occur on any college campus. These statements were created 30 years ago when researchers first decided it was a topic worthy of

consideration (Pascarella, et al., 1983; Pascarella & Terenzini, 1979a, 1979b, 1981; Terenzini & Pascarella, 1980). At that time in the history of higher education, campuses were smaller and students and faculty naturally may have had more opportunities to interact with each other outside of the classroom. Services such as student counseling centers were not as readily available as they are today and students at that time may have felt that faculty were the only ones they could turn to for assistance.

On modern campuses, however, faculty members are not as enmeshed in the general collegiate environment as they once were due to increasing demands to conduct research and perform other teaching and administrative responsibilities. In addition, some campuses have experienced tremendous growth in student and faculty populations making it very difficult for the parties to even be acquainted with one another let alone discuss "personal problems." As the campuses have grown, so have the abundance of services available to students to address many of the needs previously tended to by faculty.

The type of interactions created for the very first investigation of how students and faculty make connections probably would have been applicable to any collegiate environment of that time. However, subsequent studies merely used the original statements as the ones that were likely to occur on a modern college campus rather than considering how colleges have changed. For example, Einarson and Clarkberg (2004) found that at least some faculty on modern campuses interacted with students at athletic events, arts and cultural events, social functions, field trips, presentations and workshops, and student organization meetings. None of these interactions were

considered relevant for the first studies conducted on student-faculty interactions and therefore are not included in subsequent studies even though they now may be common methods of bringing students and faculty together.

The third way this study will improve on previous research is by focusing on four institutions and examining them in detail based on size. Some previous studies rely on data from national surveys such as the National Survey on Student Engagement (NSSE), College Student Experiences Questionnaire (CSEQ), or the Cooperative Institutional Research Program (CIRP) (e.g., Alderman, 2008; Anaya & Cole, 2001; Iverson, Pascarella, & Terenzini, 1984; Kuh, 2003; Lewallen, 1995; Terenzini, et al., 1995; etc.) to help identify the impact of student-faculty interactions on student learning and development. While these studies can be very helpful in defining what issues to examine further, the data cannot provide much more than a benchmark. By their very nature, national surveys must remain consistent and applicable to a wide audience. Questions must be asked the same way each year in order to provide comparisons over time. Because of the different contextual environments of each participating campus, students may not understand or relate to the research questions. This could result in responses that cannot be interpreted easily or applied broadly.

One investigation provides a good example of how students fail to understand some questions asked of them because of a lack of context. Cotten and Wilson (2006) asked students participating in a focus group to describe all of the interactions they had with faculty members. Even though these students participated in a residential learning community that had significant and sustained interactions with faculty as part of the

community activities, the students neglected to mention these connections until they were asked specifically to describe them. They initially focused on interactions occurring within the context of the classroom such as talking briefly with a faculty member before or after class or taking advantage of office hours. The findings of the study demonstrate that students may only be thinking of their direct academic experiences when they are asked about generic interactions with faculty outside of the classroom. It is necessary to ask about a variety of possible interactions in the context of specific environments in which they would occur (e.g., "tell me about your interactions with faculty in your residential community") in order to gauge the true nature of these relationships.

These contextually specific questions do not lend themselves well to national surveys since they would not be applicable to every campus and would take up needed space for questions that may be relevant for a wider audience. Research on student-faculty interactions may be more effective if it isolated one specific contextual environment (e.g., academic student organizations), asked about the likely interactions occurring in that environment, then compared responses from students attending different institutions.

The final improvement this study will make over previous research is to introduce a new definition of "meaningful" interactions between faculty and students. Previous studies have focused on either the quantity of interaction or the quality of interactions, or have used them as two separate factors in the same study. There appears to be an ongoing debate regarding which one results in a greater impact on students, with

one argument stating that only quality interactions can result in student learning (Clark, et al., 2002; Pascarella, et al., 1983; Pascarella & Terenzini, 2005; Strauss & Volkwein, 2004; Terenzini & Pascarella, 1980; Terenzini, et al., 1984a; Volkwein, et al., 1986) while the other argument explains that frequent interactions can produce learning benefits even if some of those interactions would not meet a high quality standard (Cotten & Wilson, 2006; Endo & Harpel, 1982; Kuh & Hu, 2001; Kuh, et al., 2005; Pascarella & Terenzini, 1975, 1979b; Terenzini & Pascarella, 1980). One researcher noted that "there may be no magic formula as to the frequency and type of faculty-student out-of-classroom interaction" (Alderman, 2008, p. 94). Other researchers (Kuh & Hu, 2001; Sax, et al., 2005) acknowledge that both quantity and quality of the interactions are important to student learning. This study will be the first to combine the previously separate measures of quantity and quality into a composite measurement and address the possibility that there is a direct relationship between the two.

The purpose of this study is to describe what kind of student-faculty interactions exist within academic student organizations and other college activities, document the quality and quantity of such interactions, and create a detailed plan for further research. If the anticipated findings are realized and there are, in fact, meaningful interactions occurring between students and faculty within academic student organizations that are not necessarily available to students through other college activities, there could be valuable information on which to base future policies and student development activities.

Theoretical Framework

To determine how student-faculty interactions might manifest themselves in academic student organizations, it is helpful to use Astin's theory of involvement to understand what occurs when energy is exerted toward meaningful experiences. The theory begins with the simple premise that students will learn if they devote enough effort to their chosen activities. As explained by Astin (1984), "a highly involved student is one who, for example, devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students" (p. 298).

While Astin acknowledges that motivation for learning is an important factor to consider, of greater importance is what kind of behavior the student exhibits that translates into learning. Even if a student has low motivation to meet with a faculty member outside of class, the plain fact that the meeting occurs will likely provide some additional information to the student to assist him or her in the learning process.

There are additional factors that must be understood in order for the theory to be applied successfully. Astin (1984) clarifies his theory by offering five postulates. The first postulate states that involvement occurs when energy is invested in any kind of object or activity. The second postulate explains that involvement is on a continuum and the amount of energy devoted to the objects or activities will vary by individuals and by situations. The third postulate describes involvement as having "quantitative and qualitative features" (p. 298), meaning that factors exist that can have numerical features such as how many times an activity occurs, as well as descriptive features such as how

meaningful the activity was for the parties involved. The fourth postulate builds on the third one by stating that learning and development occurring within an experience is proportional to the quality and quantity of involvement a student exerts for the experience. And finally, the fifth postulate explains that educational policies and practices are only effective if they can increase student involvement.

Taking this study's main focus of student-faculty interactions outside of the classroom, Astin's theory can be used to explain why many scholars have consistently found important outcomes in these interactions. When students and faculty interact in a more informal environment, regardless of topic, both parties are actively engaged in the exchange. This is compared to typical classroom environments in which the faculty member dominates the exchange through lecture methods and students are primarily passive learners. In the informal interactions, it is likely that the students will offer increased communication, thus exerting more energy into the experience. This type of experience has been described as powerful learning (Morrill, 2007) or deep learning (Cleveland-Innes & Emes, 2005) and stems from the exchange between the student and faculty member and the relationship that is formed between them.

These interactions involve both quantitative and qualitative features. For example, a student's interaction with faculty can be both a factor of time (how often and what length) as well as a factor of quality (the meaningfulness of the interaction). Considering both avenues of involvement is important to understanding the learning experience. If a student interacts with a faculty member after class in order to clarify an upcoming assignment, the encounter may be brief with little meaning outside of the

accomplishment of answering a quick question. However, this same student may decide to visit the faculty member during office hours later in the week to discuss a specific classroom topic further. More time and energy would be devoted to this encounter and it would result in additional learning for the student.

Addressing the final postulate, many institutions of higher education place considerable demands on faculty members in terms of teaching and research. These practices do not necessarily increase student involvement and may, in fact, take faculty further away from possible involvement with students. Adjusting these practices and encouraging faculty to spend more time with students could increase the opportunities for students to engage with faculty outside of the classroom. According to Pascarella and Terenzini (2005), Astin's theory highlights the need for an institutional environment that offers students meaningful opportunities to become involved in educational activities.

Research Questions

Because this study is the first to explore whether or not student-faculty interactions are occurring in academic student organizations, the research questions are designed to produce descriptive results. The purposes of this study and the related research questions are as follows:

Research Purpose #1: Determine what type of student-faculty interactions are occurring within academic student organizations compared to those that occur in other settings.

RQ1: What types of student-faculty interactions exist within academic student organizations and how do they compare to those that occur in other settings?

Research Purpose #2: Determine the quantity and quality of the student-faculty interactions occurring within academic student organizations compared to those that occur in other settings.

RQ2: What is the quantity of student-faculty interactions within academic student organizations and how does it compare to those that occur in other settings?

RQ3: What is the quality of student-faculty interactions within academic student organizations and how does it compare to those that occur in other settings?

RQ4: What is the combined quantity and quality of student-faculty interactions within academic student organizations and how does it compare to those that occur in other settings?

RQ5: What are the differences between classifications for the quantity and quality of student-faculty interactions within academic student organizations and how do they compare to those that occur in other settings?

Research Purpose #3: Determine the relationship between the quality and quantity of student-faculty interactions and institutional size, as well as the relationship between the quality/quantity of student-faculty interactions and

student organization role, as they occur within academic student organizations and other settings.

RQ6: Does the quantity and quality of student-faculty interactions in academic student organizations differ by institutional size and how do they compare to those that occur in other settings?

RQ7: Does the quantity and quality of student-faculty interactions in academic student organizations differ by student role (i.e., member versus leader) and how do they compare to those that occur in other settings?

Operational Definitions

For the purpose of this research, the following operational definitions will be used:

Student-Faculty Interactions (SFIs). Any face-to-face contact between an undergraduate student and a faculty member outside of the formal classroom environment. The interactions could be for any length of time, for any purpose, and occur on or off the campus. Hereinafter referred to as "SFIs."

Academic Student Organization (ASOs). A group, officially approved by its institution, which contains only student members, has a mission that focuses on a particular academic discipline or set of disciplines, and belongs to an academic department or college. Hereinafter referred to as "ASOs."

Institutional Size: The institutional descriptions for four-year colleges and universities were taken from The Carnegie Foundation for the Advancement of Teaching (Carnegie

Foundation for the Advancement of Teaching, 2009). The four institutions selected for this study, which will be combined by size for analysis, were:

- *Small four-year, primarily nonresidential (SNR).* This institutional type has a total enrollment of 1,000 to 2,999 students. Less than 25 percent of students live on campus.
- *Small four-year, primarily residental (SR).* This institutional type has a total enrollment of 1,000 to 2,999 students. More than 25 percent of students live on campus.
- *Large, four-year, primarily nonresidential (LNR).* This institutional type has a total enrollment of more than 10,000 students. Less than 25 percent of students live on campus.
- *Large, four-year, primarily residential (LR).* This institutional type has a total enrollment of more than 10,000 students. More than 25 percent of students live on campus.

Leader. Any student who holds an official position within his/her student organization (e.g., Committee Chair, President). "Leaders are those who accept and engage in consistent and deliberate operation of the organization. They expend considerable psychological and behavioral energy on behalf of the organization" (Arminio & Loflin, 2003, p. 38).

Member. Any student who does not hold an official position within his/her student organization. "The member level of involvement suggests consistent attendance as well as accepting some minimal responsibility with the sponsoring organization that might

include any of the following: paying dues, voting, participating in discussion regarding group functions, or identifying with the organization" (Arminio & Loflin, 2003, p. 38).

Quality. The length of SFIs to include over 60 minutes, between 31 and 60 minutes, between 16 and 30 minutes, between 10 and 15 minutes, less than 10 minutes, or has not occurred (Nadler & Nadler, 2001; Terenzini, et al., 1984a; Volkwein, et al., 1986). For this study, low quality will be defined as SFIs less than 10 minutes in length and high quality will be defined as SFIs lasting 10 minutes or longer.

Quantity. The frequency of SFIs to include 5 or more times, 4 times, 3 times, 2 times, 1 time, or has not occurred (Pascarella & Terenzini, 1979a; Terenzini & Pascarella, 1980; Terenzini, et al., 1984a; Terenzini, Theophilides, & Lorang, 1984b; Volkwein, et al., 1986). For this study, low quantity will be defined as occurring once or twice since starting college while high quantity will be defined as occurring three or more times since starting college.

Organization of the Dissertation

This dissertation contains five chapters along with references and appendices. Chapter I provides an introduction of the problem, the significance of the study, the theoretical framework being used for the study, the research questions, and operational definitions. Chapter II examines the existing literature for the history of student-faculty interactions, the importance of student-faculty interactions, the history of student organizations, and the importance of student organizational involvement. Chapter III describes the methodology used for the study including the population, instrument design, data collection, and data analysis. Chapter IV provides an in-depth analysis of

the results obtained from the survey. Chapter V summarizes the findings and conclusions of the study and provides recommendations for practice and future research.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter provides a review of the relevant literature concerning student-faculty interaction as well as student organization involvement. The literature review is organized into five sections. The first section describes the history of student-faculty interactions in American higher education while the second section discusses the importance of such interactions and what they contribute to student learning and development. The third section describes the history of student organization involvement on college campuses and the fourth section illustrates the importance of this involvement and its impact on student learning and development. The fifth section summarizes the important findings of the existing literature and highlights what the current study will contribute to the literature base.

History of Student-Faculty Interactions

When American higher education began in the 1600s, it used a structure, based on English and Scottish practices, which emphasized classical subjects such as ancient languages and religious philosophy (Rudolph, 1990) as well as promoted “a system of almost monastic common life and discipline” (Sheldon, 1901, p. 81). A lack of adequate financing caused these early colleges to implement a standard curriculum and teaching methods, “which in turn led to the adoption of the recitation method of instruction” that was used in all classrooms (Sheldon, 1901, p. 85).

Faculty were entrusted with turning students, mostly young men who had become a burden to their wealthy parents, into public leaders or respectable clergymen (Cohen, 1998). Prayers were required daily and students often had to summarize weekend sermons as a classroom exercise (Sheldon, 1901). In addition, students were limited as to what they could do when they were not in class. According to Sheldon (1901), "A student might not lie down on his own bed in daytime nor spend his own money without first securing the consent of authorities. He was strictly prohibited from leaving his own room except at certain specified hours" (p. 88).

Faculty mostly lived apart from students on the residential campuses and taught only a few specific subjects. They also viewed their teaching positions as transitional roles until they could move on to full-time clergy life or become statesmen (Cohen, 1998). Faculty members assumed a parental role with students and were "duty bound to capture and punish all rebels against the severe college discipline of the time" (Sheldon, 1901, p. 95). Students reacted by demonstrating disdain for any positive interactions their peers tried to have with faculty. As Sheldon (1901) explains, "A class looked with contempt on any of its members who should enter a recitation room before the ringing of the bell, or remain after the close of a recitation to ask a question" (p. 96).

The main academic interaction students had was with their tutors, who were typically recent graduates waiting to train for clergy life. Tutors were required to live with the students, could not marry, and taught most of the classes. They also implemented most of the disciplinary practices but were usually inexperienced at

supervising young men, causing the relationships with students to be mostly adversarial (Sheldon, 1901).

As the newly formed nation expanded into the west and railroads established connections between settlements, new information flowed between geographic regions and helped stimulate interest in modern issues such as industrial production, trade, and scientific developments (Cohen, 1998). However, the college curriculum remained focused on religious and classical topics. Frustrated students began rebelling against their strict educational environment and decided to educate themselves by creating literary societies (Sheldon, 1901). These societies centered upon debating current issues and reading materials that were never allowed in their classrooms. The societies also focused on collecting written works that were not available in their campuses libraries. Their resulting society libraries "in every case…were superior to the college libraries" (Rudolph, 1990, p. 143). For awhile, faculty and administrators tried to contain the students' newfound freedom of thought and pull them back on the path of religious obedience and controlled learning environments. However, the faculty role also was changing and they would soon join the students in pursuit of intellectual enlightenment.

As the number of campuses grew to accommodate the expanding population, the demand for faculty increased. Men began to see faculty positions as offering a career rather than merely something to do between jobs (Cohen, 1998). Yet there were not enough trained men available to take these positions. In order to create a qualified faculty, tutors and recent college graduates were sent to Germany to obtain an advanced education and were then expected to return to American campuses to assume faculty

positions. They came back with new ideas on pursuing knowledge through research and intellectual inquiry. These ideas began to take root on college campuses as more faculty looked to the German model as the way to pursue learning and develop new instructional techniques. This approach was cemented in American higher education with the founding of Johns Hopkins University in 1876 (Cohen, 1998). This institution increased the reputation of faculty by treating them as authorities of information. Their reputation grew further through the practice of only allowing well-trained students to work on faculty research projects and conduct advanced studies (Cohen, 1998). It was during this period of time when students began looking to faculty for knowledge and seeking their guidance for intellectual development.

With the success of Johns Hopkins University, more colleges began seeing their faculty as a point of prestige and competed for the best ones. Faculty reputations grew as their research solved modern societal problems. In addition, wealthy patrons, trying to avoid paying taxes, developed philanthropic foundations to support the research activities of the faculty (Cohen, 1998). With additional funding and a growing recognition of their research, faculty helped form national groups to set the standards of inquiry in specific disciplines. In turn, the faculty began focusing more on their scholarly fields rather than the individual campuses on which they worked, further separating them from students. It was during this time period that the first student organizations, the literary societies, decreased in importance because the faculty were now addressing all of the students' intellectual needs and there was no reason to duplicate those efforts outside of class (Rudolph, 1990).

As a result of the growth of faculty, the administrative ranks also grew. Students spent more time out of class than they did in it and staff members were needed to provide supervision in the residential areas of campus, distribute needed discipline, and coordinate the increasing number of student activities such as athletics, debate societies, and fraternities (Cohen, 1998). These staff members assumed the original roles of faculty as the managers of student behavior and the leaders of the campus environment while the faculty moved further into their new roles as authorities of intellectual development who were not to be bothered with the social lives of students.

Importance of Student-Faculty Interactions

Since the initial rise of the faculty, American higher education has grown dramatically. The amount and variety of institutions has increased in order to provide for all the training and educational needs of society. And a wide-ranging curriculum has emerged that covers a diversity of academic disciplines and helps train students for jobs after graduation. The growth of the national economy depends on being able to find qualified workers to fill jobs so it is essential to help students make the most of the learning while they are in college.

Astin's theory of involvement explains that college students can direct some of their own learning if they exert the time and energy to developing opportunities for learning (Astin, 1985). For instance, when students focus on meaningful interactions with the wide variety of people available on a college campus such as their peers, staff members, and faculty, their potential for learning is increased (Pascarella & Terenzini,

2005). However, some relationships are not as powerful as others when it comes to the learning process.

When students interact with staff members on a college campus, the staff often have a variety of roles ranging from supportive resources to administrative services (Love, 1995). These roles, as well as the reasons behind why a student is interacting with staff, combine to create a potential learning experience. For instance, staff members serving in mainly administrative roles may be approached by students who must turn in required documents. Other than educating students on the processes and procedures of college, these staff members may not have direct responsibilities that impact significant learning for students.

However, staff members serving in more supportive roles may have opportunities to form deeper relationships with students and therefore contribute something more valuable such as providing a social environment that helps students feel welcome and encourages them to stay in college (Berger & Braxton, 1998; Cheng, 2004; Kuh, et al., 2005; Love, 1995; Pascarella & Terenzini, 2005). These staff members also can provide resources such as counseling and mentoring programs that fulfill students' needs outside of class, thereby contributing to their overall college experience and pursuit of academic achievement (Kuh, et al., 2005). Outside of contributing to a positive campus environment and one study that demonstrated a positive impact on knowledge acquisition (Volkwein, et al., 1986), little is known about the impact of staff on learning (Love, 1995).

In contrast, there is considerable evidence that student interactions with their peers and faculty have a tremendous impact on learning outcomes deemed important by higher education (Astin, 1993; Kuh, et al., 2005; Pascarella & Terenzini, 2005). For instance, interactions with peers are influential because of the amount of time students spend together both in and out of the classroom. When students are interacting with their peers in a variety of informal situations, they can gain experience with differing perspectives and beliefs as well as support each other in the pursuit of learning.

Faculty interactions, while not as frequent as peer interactions, can be just as powerful because of their impact on the concept of "deep" learning. Cleveland-Innes and Emes (2005) explained that there were three approaches that students use to engage with their learning environment—deep, surface, and achievement learning. With deep learning, there is intrinsic motivation to learn and students actively search for knowledge throughout their environment, such as being curious about a specific topic and searching for information to satisfy that curiosity. Surface learning is extrinsically motivated and occurs when students use a minimal amount of effort to accomplish a required task. An example of this is when students meet only the minimum requirements for an assignment in order to finish it and move on to other activities. While they do review the material, they are not working with it enough to fully understand it and apply it. Achievement learning is based on students' motivation to reach a loosely related goal such as a good grade. The learning itself is not the motive; rather, students are seeking the result of that learning which can benefit them in other ways such as getting into medical school. They

may not care about the material they learned in their English class but they do care about the grade they achieved and how it relates to their other grades.

The authors (Cleveland-Innes & Emes, 2005) explain that the approach students take for learning is both a process and an outcome. They found that deep learning and achievement learning were most often associated with SFIs and that as those interactions increased, the students' deep learning increased while achievement learning decreased. In other words, the students may initiate interactions with faculty in order to accomplish a specific achievement goal such as understanding what they have to do to get a good grade in a class. However, the more students interact with faculty, the more they begin to develop a natural curiosity about the material and want to learn more in order to satisfy that curiosity. This conclusion is supported by other researchers (Astin, 1993; Kuh, 1995; Kuh, et al., 2005; Pascarella & Terenzini, 2005; Thompson, 2001) and places importance on increasing SFIs outside of the classroom environment.

The exchange of knowledge that occurs when students and faculty interact within a classroom environment is easy to understand. When students participate in the formal learning of a classroom, they engage in the planned distribution of knowledge. Topics are defined by faculty and formal assessment measures of student learning, such as tests and written assignments, are implemented in order to evaluate what students have gained from their classes. However, Boyer (1987) suggests that "the most important teaching may go on outside the classroom" (p. 157) so it is also important to understand how informal learning occurs.

According to Marsick and Watkins (2001), informal learning is intentional, loosely structured, and directed by the learner. It can generate from a variety of situations such as attempting a task through trial and error, or emerge from relationships such as having a mentor to guide personal decisions. In these informal situations, learners may not even be aware of the gains they have made so it is helpful to understand the authors' Informal and Incidental Learning Model so all of the processes that factor into informal learning can be identified.

The model first explains that all informal learning occurs within the specific context of the learner (Marsick & Watkins, 2001). The context includes the immediate environment, the interaction between the learner and people in that environment, and the activities conducted by the learner within the environment. This context influences how learners make meaning of the information they have received. The process of informal learning occurs when new information disrupts the learner's contextual environment. Learners will evaluate the new information through their personal view of the world as they attempt to understand why the information is causing a disruption. They will compare the new event to situations and information they have encountered in the past and determine what additional knowledge has been contributed, thereby resulting in informal learning.

While informal learning can occur anywhere and at anytime, the authors (Marsick & Watkins, 2001) recommend three conditions to increase the likelihood that informal learning will occur. First, the environment needs to be structured for informal learning opportunities such as creating purposeful situations where new ideas may be

exchanged. Second, learners should be encouraged to look for those opportunities and explore them. And third, learners should be encouraged to reflect on any new ideas generated during these opportunities in order to gain insight into their impact on learning.

When the model is applied to the context of informal interactions between faculty and students, it is easy to understand how learning occurs. Through their enrollment and participation in college life, students are already in a contextual environment that promotes learning. They attend class and are expected to perform the requirements to successfully earn an academic degree. Most of their knowledge acquisition occurs in the confines of a classroom with the faculty member serving in the role of expert. When students and faculty interact informally outside of the classroom, they are creating a new experience that is outside of their normal contextual environment. This can help trigger the learning process and signal to students that new information is coming to them from people they view as knowledge experts.

However, it is not always easy to define the type of interactions that provide these learning opportunities. Some researchers have focused on SFIs within specific contexts such as living-learning communities (LLC). The early LLC movement required faculty to reside alongside students in campus residences or spend a substantial amount of time within these residential environments such as through teaching classes in the living space or holding office hours there rather than in academic buildings. Yet a major problem with this type of community is that faculty members do not always want to get involved in these time-intensive environments because they are not rewarded for doing

so, do not personally enjoy spending that much time with a younger generation, or do not feel they can handle the personal issues of students that can emerge from the increased intimacy between them and students (Golde & Pribbenow, 2000).

Because of these reasons, the modern LLCs are increasingly focused on peer interaction within the academic environment, such as peers taking a number of classes together and attending programs directed toward their academic disciplines. Structured this way, these communities are easier to manage and can still increase the frequency of SFIs (Garrett & Zabriskie, 2003; Inkelas & Weisman, 2003; Kuh, Palmer, & Kish, 2003; Pascarella & Terenzini, 1981; Terenzini, et al., 1996); the quality of SFIs (Pascarella & Terenzini, 1980b); or result in additional benefits such as increased involvement in student organizations (Pike, 1999), improved academic performance (Pascarella & Terenzini, 1981), and persistence in college (Pascarella & Terenzini, 1981). However, the purpose, structure, and availability of LLCs may vary between campuses and may not accomplish the goal of bringing students and faculty together in close and frequent contact.

Another opportunity for meaningful interaction between students and faculty that has been explored is working together on research projects. These partnerships can help students become actively involved in their own learning (Pascarella & Terenzini, 2005) as well as provide faculty with low-cost assistance for their research agendas. In fact, one study concluded that working with faculty on just one research project during college might result in a transformative learning experience for students (Kuh, et al., 2005). According to the authors, “It is hard to imagine a richer educational setting for

student-faculty interaction than working side by side with a faculty member on a research project. Students not only observe an expert at work, but they also contribute to that work by applying in-class learning to the research project. And because many such projects extend beyond a single academic term, they provide students and faculty with many opportunities to discuss topics related and unrelated to the research" (p. 214). Working on research projects with faculty members can be a powerful experience for students in a variety of ways such as building skills like interpersonal communication, project management, and leadership (Nikolova Eddins, Williams, Bushek, Porter, & Kineke, 1997); increasing self-awareness and overall satisfaction with college (Nikolova Eddins, et al., 1997); and increasing the likelihood of graduation and pursuit of an advanced degree (Walpole, 2003).

While one study found that some faculty members were interacting with students on research projects a few times a month (Einarson & Clarkberg, 2004), these opportunities may not be available to a variety of students or could come so infrequently that they would never benefit a large segment of the undergraduate population. It is important to identify interactions that do not center exclusively on research projects or residential life so that the diversity of students attending modern college campuses can have an opportunity to pursue interactions with faculty. Researchers have demonstrated that a variety of less intensive SFIs also contribute to students' development including having informal conversations with faculty about grades, assignments, and career plans (Alderman, 2008; Astin, 1993; Cotten & Wilson, 2006; Kuh, et al., 2005); working with faculty on campus committees (Kuh, et al., 2005); being a guest in a professor's home

(Astin, 1993); having a faculty mentor (Cotten & Wilson, 2006); participating in a course designed to introduce students to the functions of a college campus (Maisto & Tammi, 1991); and interacting with faculty in student organizations or campus activities such as athletics and conferences (Alderman, 2008).

There are a variety of interactions that can occur between students and faculty but they are often minimal (Einarson & Clarkberg, 2004; Fusani, 1994; Nadler & Nadler, 2001) and even may be non-existent for some students (Cotten & Wilson, 2006). The existing literature explains that anywhere from two-thirds to almost all of undergraduate students experience SFIs (Jaasma & Koper, 1999; Lewallen, 1995; Rosenthal, et al., 2000) and that those interactions usually occur before or after class or during a faculty member's office hours (Cotten & Wilson, 2006; Jaasma & Koper, 1999) and last less than ten minutes (Jaasma & Koper, 1999; Lewallen, 1995). SFIs typically occur when students need help with coursework (Anaya & Cole, 2001; Cotten & Wilson, 2006; Fusani, 1994; Nadler & Nadler, 2001); advice on academic or career issues (Alderman, 2008; Cotten & Wilson, 2006; Fusani, 1994); or have a personal interest in a faculty member's area of expertise (Gaff, 1973). While the majority of the literature found infrequent SFIs, it is important to note that Terenzini and Wright (1987) found that SFIs occurred five to seven times per year for academic issues and up to two times per year for non-academic issues.

Students typically initiate all of the interactions but only if they have a reason to do so and feel comfortable approaching faculty. According to the Cotten and Wilson (2006), a number of factors influence the comfort level felt by students. For instance,

maturity is a key factor in helping students feel comfortable with faculty members. Some researchers demonstrated that junior and senior level students are more likely to have SFIs than freshmen and sophomores (Alderman, 2008; Cotten & Wilson, 2006). In addition, as students progress in their college program, they become more interested in interactions with faculty and what they could gain from faculty in terms of knowledge and career development (Arminio & Loflin, 2003; Cotten & Wilson, 2006) as well as understand more about what faculty are required to do within their positions (Cotten & Wilson, 2006). Terenzini, et al., (1984a) theorized that SFIs may be more important in the later years of an academic career than the earlier years because students have a greater self-awareness and understanding of the academic environment and can gain more from interacting with faculty.

Another factor influencing the comfort level of students is how they perceive faculty receptiveness to interacting with them. According to one study, students are unsure whether faculty want interactions or if they have enough time to do so (Cotten & Wilson, 2006). Students also need some level of recognition between faculty members and themselves in order to feel comfortable in initiating interaction. If they felt faculty members did not know who they were because of large classes, for instance, they might choose not to initiate contact.

Smaller campus environments often have opportunities for more informal interactions (Kezar & Kinzie, 2006; Pike & Kuh, 2005) and may help students feel that faculty are more accessible and open to interactions (Alderman, 2008; Dilley, 1967; Gaff, 1973). On the other hand, larger institutions provide increased opportunities for

other powerful interactions such as participating in learning communities and faculty research projects (Kezar & Kinzie, 2006). Astin (1993) agreed by saying, "In all likelihood, large institutions, in comparison to small ones, offer more diverse social opportunities (social organizations, parties, and so on), more frequent cultural events on campus, a greater number of extracurricular activities, and fewer regulations governing campus life" (p. 284).

Yet, institutional size may not matter as much as how a faculty member teaches and interacts with students in the classroom setting. If faculty members create an intimate classroom environment by sharing personal information or using interactive teaching techniques, students can perceive that faculty are receptive to interactions outside of class and students may be more willing to initiate contact (Baxter Magolda, 1987; Cotten & Wilson, 2006; Wilson, et al., 1974). One study found that faculty members who were identified by students as good teachers had a desire to engage with students on a variety of issues both in and outside of the classroom (Gaff, 1973).

Even when students feel comfortable enough to initiate interaction, they may choose not do so because of other barriers. For instance, once a connection has been established with a faculty member, the student can perceive increased expectations for academic performance (Cotten & Wilson, 2006). In other words, getting to know a faculty member means that students will stand out and their classroom performance will be noticed. Students may avoid interactions with faculty so they do not have to exert extra effort to perform well or run the risk of disappointing their instructors. Students

also may need a catalyst to help them interact with faculty such as pre-planned activities that bring both groups together (Anderson & Carta-Falsa, 2002; Cotten & Wilson, 2006).

Understanding the motivations for students to seek interactions with faculty is just one part of the equation. Another challenge comes from the faculty perspective. With the growing reliance on adjunct faculty and increased teaching loads for tenured faculty, there may not be enough time for faculty to engage with students in meaningful ways unless institutions provide the support and appropriate rewards for doing so (Boyer, 1987; Kuh, et al., 2005; O'Meara & Braskamp, 2005). However, one study found that institutional support was available for faculty who wanted to interact with students but some chose not to because of personal preferences or discomfort with interpersonal communication (Einarson & Clarkberg, 2004). While some faculty may choose not to interact with students, it is still important to provide students with what they need to be successful in college and advance their intellectual development. Boyer (1987) states that "faculty and administrators turn their backs on life outside the classroom, where there is so much learning that either enhances or diminishes the quality of the undergraduate experience" (pp. 192-193).

Some researchers have identified characteristics of faculty who may be more inclined to interact with students outside of the classroom and experience their own personal gains from doing so. Einarson and Clarkberg (2004) discovered that faculty who spend a lot of time with research and teaching activities are more likely to also engage in SFIs and will do so even if there is no institutional support or direct rewards. But they may find they receive personal rewards such as meaningful relationships (Gaff,

1973); a sense of accomplishment (Wilson, et al., 1974); an improvement in their teaching techniques (Frankel & Swanson, 2002; Golde & Pribbenow, 2000); a greater understanding of student needs and interests (Wilson, et al., 1974); and greater satisfaction with their job responsibilities (Wilson, et al., 1974).

One way to encourage faculty and students to spend some of their time together is by making it easier for the interactions to happen. Besides research projects and learning communities, another formal activity already exists on college campuses that has the potential to bring faculty and students together on a regular basis and for common interests. Student organizations have a long history of fulfilling the developmental and social needs of students and, over time, involving faculty in their activities.

History of Student Involvement in Organizations

The first historical references to student organizations occur between the fifth and tenth centuries in Europe (Sheldon, 1901). These early organizations were founded for political purposes when students came together to advocate for individual rights that colleges and communities would not automatically grant them. In seventeenth century England, organizations began to form that concentrated more on personal interests rather than political issues. The students, captivated with the leisurely lifestyle of the nobility, developed groups to promote activities such as fox hunting, playing cards, and attending horse races (Sheldon, 1901).

Student organizations shifted back to political issues during the eighteenth century with the formation of debating societies (Sheldon, 1901). These societies varied

in numbers depending on the political topics circulating throughout the communities. Literary societies also existed but were described as less critical than debating societies and focused on reading popular essays and discussing them. Because of the lower status of college students within the local communities, students from debating and literary societies often came together to form unions which would then represent its members in issues important to the local community as well as collect scholarly works for the purpose of enhancing intellectual development (Sheldon, 1901).

When student organizations made their first appearance in the American colonies in 1753 at Yale University, it was in the form of literary societies (Rudolph, 1990). These societies became prominent in colonial colleges because "the athlete had not yet arisen as a college hero, so the orator and writer represented the ideals of the academic youth" (Sheldon, 1901, p. 133). Like the European student unions, the American literary societies focused on activities such as "prepared orations, debates, declamations, and critical papers" (Sheldon, 1901, p. 129); writing comedies and performing them for members (Cutting, 1871); soliciting student works and publishing them in society-sponsored literary magazines (Rudolph, 1990); and bringing controversial speakers to campus in order to stimulate discussion (Rudolph, 1990). Given the adversarial nature between students and faculty at that time (Sheldon, 1901), many of the works prepared by society members consisted of caricatures of the faculty along with humorous pieces designed to criticize them (Cutting, 1871). The societies often held competitions and judged all of the member-created works for quality (Sheldon, 1901).

The literary societies also followed their European counterparts in the collection of modern literary works. In one example of the impact of these collections, Cutting (1871) describes how, in the 1800s, the Amherst College library contained a single case of books whereas the literary societies collected over 8,100 texts. Colleges often limited their collections to religious and classical literature while students worked to solicit modern pieces from community leaders and alumni (Sheldon, 1901).

It is reported that there were numerous skills that students developed as members of these literary societies such as interpersonal communication, written and oral communication, meeting management, and critical thinking (Sheldon, 1901). As explained by Rudolph (1990),

> In a sense, the literary societies and their libraries, the clubs, journals, and organizations which compensated for the neglect of science, English literature, history, music, and art in the curriculum—this vast developing extracurriculum was the student response to the classical course of study. It brought prestige to the life of the mind. It helped to liberate the intellect on the American campus. It was one answer to the Yale Report of 1828, an answer so effective that by the end of the century at Yale itself there would be real concern over which was really more fundamental, which more important, the curriculum or the extracurriculum (p. 144).

Once they graduated, the societies helped form such a strong bond between students that alumni would often come back to the campus to participate in the commencement exercises prepared by the societies (Sheldon, 1901).

As membership in literary societies increased and virtually all students joined, the leadership of the societies became increasingly political, with smaller cliques controlling the elections of officers. For that reason, students began forming social fraternities and secret societies to help gain power on campus (Sheldon, 1901). With the

power struggles occurring between students and the curriculum incorporating modern issues, literary societies vanished and other organizations began fulfilling unmet needs for students. However, the legacy of the literary societies continued through activities such as intercollegiate debating competitions and professional associations created to enhance learning in fields such as medicine, law, and science (Sheldon, 1901).

If literary societies served to fill the gaps of the academic curriculum, then Greek societies helped the students increase their social development by creating strong emotional bonds between the young men. According to Rudolph (1990), Greek societies emerged in 1825 to offer "an escape from the monotony, dreariness, and unpleasantness of the collegiate regimen" (p. 146) as well as diminish the influence of the students who controlled the literary societies (Cutting, 1871). The activities of the Greek societies included practices that were discouraged or banned by the church-run colleges such as drinking, smoking, and gambling. The Greek groups created a strong sense of loyalty among members and contributed to the demise of the literary societies, especially when institutions began focusing more on methods of intellectual development in the classroom and made the literary societies obsolete for the academic environment.

While the Greek organizations fueled the social needs of students, gymnastics clubs addressed their physical conditioning needs. The emergence of the German gymnasium movement gave rise to such clubs in the late 1840s (Rudolph, 1990) and created a network of campus recreational activities that provided physical development as well as interaction that solidified social connections between students (Sheldon,

1901). Eventually, the college athlete surpassed the literary scholar as the hero on college campuses (Sheldon, 1901).

With the growing list of student organizations and the increased attention on faculty as knowledge experts, the tension between students and faculty began to diminish (Sheldon, 1901). As faculty began to teach modern topics rather than just the classical ones, students began inviting them to join campus groups and further contribute to the students' intellectual development (Cutting, 1871). Faculty served as honorary members of the organizations, judges for contests, and advisors for events and activities (Cutting, 1871).

Through all of these extracurricular activities, students formed personal interests, developed a variety of skills, and enhanced their knowledge. While the academic curriculum provided theoretical and foundational knowledge, the interactions students had outside of the classroom with their peers and faculty provided the practical knowledge they needed to succeed in the business world. As their skills began to increase, additional organizations emerged to help address students' changing campus needs. Student government associations formed at the end of the nineteenth century (Rudolph, 1990) and it was at this time that faculty roles were seen as purely academic. No longer did faculty assume any responsibility for behavior management. They instead focused more on the growing research movement and their scholarly contributions to academic disciplines. This perpetuated the need for more personally fulfilling activities that allowed students to have a sense of well-being and support while attending college and they increasingly turned to their peers to fulfill these needs.

Importance of Student Organization Involvement

In his book *What Matters in College? Four Critical Years Revisited,* Astin (1993) described the peer group as "the single most potent source of influence on growth and development during the undergraduate years" (p. 398). Researchers have validated this claim by linking participation in student organizations to improvements in a variety of skills and developmental needs as well as fostering a sense of community on the campus and increasing the likelihood that students will graduate (Astin, 1993; Foubert & Grainger, 2006; Graham & Gisi, 2000; Hernandez, et al., 1999; Huang & Chang, 2004; Kuh, et al., 2005; Kuh, et al., 1991; Moore, et al., 1998; Pascarella & Terenzini, 2005; Stanford, 1992; Tinto, 1975).

Being involved in organizations also appeals to employers and increases the likelihood that a student will obtain a job offer after graduation (Pascarella & Terenzini, 2005). One group of researchers studied what job recruiters look for in education, engineering, and business fields in terms of collegiate preparation and experience (Moore, et al., 1998). They found that some recruiters preferred involvement in organizations over academic performance. Specifically, recruiters for education and engineering fields preferred students who had a high level of experience in campus organizations and average grades over students with high grades and average activities experience. Recruiters for the business field, however, did prefer students with high grades and at least average activities experience, indicating that for some fields, academic performance may still be of greater importance but that experience with student organizations stands prominently alongside it.

Recruiters are not the only group who recognize the importance of organizational involvement on career success. Kuh et al. (1991) found that alumni attributed at least some of their job success to their involvement in student organizations while attending college. Involvement also impacts alumni behavior by increasing the likelihood that they will join community groups and become civically engaged in their local areas (Johnson, 2004). In addition, involvement increases positive perceptions of the institution and helps build loyalty (Kuh, et al., 1991), which can result in increased donations and support from alumni in later years. This loyalty begins with students joining organizations which connect them to the campus and their peers, while also providing an experiential environment where students can learn and refine practical skills needed for the workplace (Kuh, et al., 2005). As summarized by Pascarella and Terenzini (2005), "failure to capitalize on students' out-of-class experiences risks increasing learning only at the margins" (p. 647).

While many researchers have found benefits to being involved in student organizations (e.g., Astin, 1993; Pascarella & Terenzini, 2005; Terenzini, Pascarella & Bliming, 1996; etc.), they tend to treat all student organizations the same, making the assumption that any involvement equates to the same outcomes for every student in every situation. According to Terenzini, Pascarella, and Bliming (1996), "most researchers have either operationalized the concept as a global variable, or they have made no clear distinction between extracurricular and peer involvement" (p. 152).

Even though there have been a few studies conducted on involvement in specific types of student organizations, the research has been mostly confined to studies of Greek

organizations and intercollegiate athletics (see Astin, 1993; Pascarella & Terenzini, 2005). Beeny (2003) suggested that future research might focus on "examining whether different types of student organizations influence the amount of expressed learning or the skills or competencies students report gaining" (p. 87). Gellin (2003) echoed the suggestion saying that "traditionally, scholars have used the moniker *clubs and organizations* to represent the large number of sponsored activities available on college campuses" but that the broad focus "may be limited" and that a "closer examination of specific clubs and organizations may be warranted" (p. 759).

A few researchers have found that when student organizations focus on academic issues and career development topics, students, especially juniors and seniors, benefit in a variety of ways such as improved career planning (Wessel, Christian, & Hoff, 2003); networking with others who can help them prepare for their career (Holzweiss, et al., 2008); and overall learning (Terenzini, et al., 1996). In fact, Pascarella and Terenzini (2005) explain that student involvement that is not relevant to academic purposes can inhibit intellectual development.

Since student involvement in the general sense has been consistently demonstrated to increase student development and learning, it is necessary to begin delving deeper into specific types of organizations, starting with the ones that align most closely with the academic missions of institutions. In particular, it would be valuable to explore what important activities, such as interactions between students and faculty, are already occurring in academically-focused organizations. Some researchers have found that student involvement can lead to interactions with faculty (Bean & Kuh, 1984; Pike,

1999; Skipper & Argo, 2003) but questions remain regarding what kind of interactions are occurring, in what environments, and how students benefit from them.

Summary

Several conclusions can be drawn from the review of the literature. First, interactions between students and faculty have been occurring since the 1800s and have typically centered on academic and intellectual topics. Second, interactions between students and faculty can have a powerful impact on student learning and development even though they may be brief or occur infrequently. Third, there is a lengthy history of students being involved in campus organizations. While faculty have not been involved in these organizations to a large degree, there has been some documented involvement, especially when the subject matter addresses academic and career topics. And fourth, very few studies have merged the two topics together and explored what kind of SFIs are occurring within campus organizations. The ones that have researched this topic neglected to investigate the impact of the contextual environment.

This study contributes to the existing literature by examining one type of campus organization which promotes academically-oriented subject matter. It is within this type of organization that faculty and students may be more naturally drawn together to share their common interests. By better understanding what kinds of interactions are occurring between students and faculty within these academic organizations, institutions can determine how to structure the collegiate environment so it promotes more of these interactions and increase student learning both in and out of the classroom.

CHAPTER III

METHODOLOGY

This study employed survey methodology to gather data. The purpose of using survey methodology was to provide adequate description of the topic being studied as well as maintain objectivity towards the study participants and potential findings (Smith, 1983). This chapter will describe the paradigm used for the study, the population and sample, the survey instrument, and data collection and analysis processes.

Research Paradigm Used for the Study

Given the research questions posed to resolve this problem, the post-positivist paradigm is the appropriate structure to use as a research model. As explained by Guba (1990), the fundamental belief of the post-positivism paradigm is that human beings cannot fully understand reality. However, interpretations can be made from reality and the "researcher must have some competently gathered evidence…to back up the interpretation that is being given" (Phillips & Burbules, 2000, p. 79). The researcher can be an observer of what is being studied and act in a neutral manner towards participants in the study (Smith, 1983). This is achieved by "carefully selecting a representative sample from a population of interest and then, by means of a statistical inference, calculating the probability that findings based on the sample are characteristic of the population" (Schwandt, 2001, p. 106).

The purpose of this study was to discover what is happening between students and faculty in previously unexamined areas of the collegiate environment. To better

understand student learning, it was important to conduct the study in such a way that the results could provide a thorough description of what is occurring and how future research could be constructed to fully assess the topic. Merriam (1991) explained that the post-positivist paradigm utilizes tools such as "scales, tests, surveys, and computers to collect data" and that this allows the researcher to maintain "as much distance from the researched as possible so as to remain objective" (p. 45). Therefore, the research design was structured to obtain this objectivity by using the recommended procedures, subject selection, and instrumentation. Along with obtaining objectivity, the study also was designed to be descriptive in nature. According to Isaac and Michael (1990), descriptive research "does not necessarily seek or explain relationships, test hypotheses, make predictions, or get at meanings and implications" (p. 46). This study sought to document, for the first time, a contextual environment and the interactions that are occurring within it.

Population and Sample

As outlined by the post-positivist paradigm, the study utilized survey methodology to obtain information regarding student-faculty interactions in academic student organizations. To combat the non-random nature of the sample, different types of four-year institutions were pre-selected as target populations to ensure students from different collegiate environments were included. The sample came from four institutions in the state of Texas which covered different categories of the Carnegie classifications. Those institutions included the University of St. Thomas in Houston (small four-year, primarily nonresidential), McMurry University in Abilene (small four-

year, primarily residential) , Texas State University in San Marcos (large four-year, primarily nonresidential), and Texas A&M University in College Station (large four-year, primarily residential).

In addition to selecting different institutional types, a pre-selection process for the ASOs was conducted by viewing the student organization list at each institution. Only organizations with similar missions and purposes on each campus were selected for the study. The resulting organizations represented the academic disciplines of chemistry, psychology, English, health, and education. Participants in the five ASOs at each institution were combined into one institutional group in order to overcome any variance that occurred due to active membership numbers.

The following mission statements were obtained from organizational websites to highlight the similarities between the organizations on different campuses.

Chemistry

- *American Chemical Society*: "The purpose of the ACS Student Affiliate Chapter is to promote interest in the chemical sciences. We are designed to provide a place for undergraduate chemistry majors (and anyone else who is interested in chemistry) to meet and get to know one another. The organization also brings chemistry to the campus and community, performs community service and attends the National ACS Conference" (ACS Profile, 2009).
- *Chemistry Club*: "The Chemistry Club is affiliated with the Chemistry & Biochemistry Department" and has the goal of providing "resources to further the needs of students pursuing a degree in chemistry or enrolled in chemistry

courses, as well as to create a long-term network among students" (About Chemistry Club, n.d.).

Education

- *Association of Texas Professional Educators (ATPE):* "With the strength of more than 112,000 educators as its foundation, ATPE is a constant champion for public education. ATPE believes it takes everyone working together to make Texas public schools successful. This collaborative philosophy is evident in our diverse membership and is what distinguishes ATPE from other organizations. ATPE members are committed to making positive contributions to the education profession and to the lives of the students" (Association of Texas Professional Educators, 2009).
- *Kappa Delta Pi*: Kappa Delta Pi is an International Honor Society in Education and "was established to foster excellence in education and promote fellowship among those dedicated to teaching. The founders chose the name from the Greek words to represent knowledge, duty, and power. Pioneering from its beginning by including women as well as men, Kappa Delta Pi grew form a local chapter to the international organization it is today, comprising 582 chapters and more than 45,000 members" (About KDP, 2008).

Health

- *Health Occupations Students of America (HOSA):* "HOSA is a national student organization endorsed by the U.S. Department of Education and the Health Science Technology Education Division of ACTE. HOSA's two-fold mission is

to promote career opportunities in the health care industry and to enhance the delivery of quality health care to all people. HOSA's goal is to encourage all health occupations instructors and students to join and be actively involved" (What Is HOSA?, n.d.).

- *Phi Epsilon Kappa:* "Phi Epsilon Kappa Fraternity is a national professional fraternity for persons engaged in or pursuing careers in physical education, health, recreation, dance, human performance, exercise science, sports medicine and sports management. Membership is open to persons interested in the purposes of the Fraternity and in providing time and energy for the benefit of these areas" (Phi Epsilon Kappa, 2009).
- *Health Information Management Student Association:* The purpose of this organization is "to promote student engagement in the HIM program and to promote the HIM profession." Activities include "social activities, guest speakers, community service, and professional involvement" (Health Information Management Student Association, n.d.).

Psychology

- *Psi Chi:* "Psi Chi is the National Honor Society in Psychology, founded in 1929 for the purposes of encouraging, stimulating, and maintaining excellence in scholarship, and advancing the science of psychology. Membership is open to graduate and undergraduate men and women who are making the study of psychology one of their major interests, and who meet the minimum qualifications" (About Psi Chi, 2009).

- *Psychology Club:* "The Psychology Club is open to all students regardless of major, who are interested in becoming involved in an academic as well as a social organization." The organization "is designed to facilitate students' knowledge about the field of psychology and other related possibilities of psychology. Additionally, the club assists students in gaining experience in volunteer work, learning about graduate school, and meeting new friends" (Psychology Club/Psi Chi, n.d.).

English

For English, the organization Sigma Tau Delta was found on all campuses.

- *Sigma Tau Delta:* "Sigma Tau Delta is the International English Honor Society. Its purpose is to confer distinction upon undergraduates, graduates, and scholars in academia as well as upon professional writers who have recognized accomplishments in linguistic or literary realms of the English language. Sigma Tau Delta affords exceptional students in the field of English opportunities for furthering culture, for formulating ethical principles for developing skills in creative and critical writing, and for fostering a spirit of fellowship" (Sigma Tau Delta profile, 2009).

Instrument

The researcher-designed survey instrument combined a collection of 24 statements regarding student-faculty interactions that were used in previous studies on SFIs (See Appendix A). Participants were asked to view the list of interactions three different times and respond to a different question each time. The first time through the

list, participants were asked to consider the interaction and select all applicable options in regard to why the interaction occurred. The purpose of this section was to gather basic information on what SFIs were occurring as a result of participants' involvement in ASOs compared to SFIs stemming from other collegiate experiences.

The second time through the list, participants were asked to select how many times the interaction occurred between them and a faculty member since they started college. The purpose of this section was to obtain the quantity of SFIs as experienced by participants. Previous studies that have examined the quantity of SFIs have used the frequency of such interactions as the basis for judging quantity (Pascarella & Terenzini, 1979a; Terenzini & Pascarella, 1980; Terenzini, et al., 1984a, 1984b; Volkwein, et al., 1986).

The final time through the list, participants were asked to consider the average length of interactions they have had with faculty. The purpose of this section was to obtain the quality of SFIs as experienced by participants. Previous studies have examined the quality of SFIs through the length of such interactions as the basis for judging quality, with interactions over 10 minutes in length being of good quality (Nadler & Nadler, 2001; Terenzini, et al., 1984a; Volkwein, et al., 1986).

In addition to the list of SFIs, participants were asked to provide some demographic information such as gender and classification along with additional information such as their role within the ASO (i.e., member or leader) and whether or not they were members of a learning community on their campus. This information was

used to explore differences between demographic groups as well as establish an overview of each institution's participants.

Data Collection

An online survey service, QuestionPro, was obtained in order to design and implement the survey. The service met several criteria important to the implementation of the survey such as secure data collection, management of participants (e.g., tracking who responded, sending reminders, etc.), and access to raw data for the analysis process. Once the initial survey draft was developed, the researcher asked two ASOs at Texas A&M University that were not selected to participate in the actual study to take the survey twice over the course of fourteen days in order to determine test-retest reliability (Isaac & Michael, 1990). A reliability analysis was conducted between the two administrations of the survey and resulted in an overall coefficient alpha of .912. Split half reliability analysis was conducted on all three sets of questions. For the first set of questions, reliability was .766; the second set of questions was .955; and the third set of questions was .988.

The pilot participants also were asked to provide written feedback regarding clarity and validity of the instrument items. As a result of the feedback received, a few minor changes were made to the instrument including the rephrasing of one non-SFI question for clarity purposes as well as correcting a few grammatical issues. Once the changes were made, a final version of the survey was prepared for the formal data collection period. The final survey instrument appears in Appendix B. Pilot testers reported an average time of ten minutes to complete the survey.

To recruit participants for the study, the researcher first contacted staff representatives at each pre-selected institution who had responsibilities for campus organizations. The purpose of this communication was to request their assistance in identifying the approximate date when the organizations concluded their recruiting and selection processes for the fall semester as well as identifying, for each ASO, the appropriate student representatives, staff advisors, and all of their contact information. Based on this initial contact, one institution originally selected to be part of the study had to be replaced with another institution. The reason for the replacement was that the original institution did not have the administrative structure to identify current student representatives for their campus ASOs. Since there was no method of identifying and contacting the appropriate organizations, another institution with the same basic characteristics was substituted.

Contact was made with the student representatives to explain the project and ask for their assistance in recruiting members of their organization. Each representative was asked to share information with their organizational members regarding the project, ask for volunteers to take the survey, and collect email addresses of all willing members prior to October 30, 2009. All members of each organization were invited to participate. In a few cases, the student representatives did not respond to the request. When this happened, staff advisors for the ASOs were contacted to assist with recruiting organizational members. Out of the twenty organizations identified for the study, only one organization's staff advisor and student representative never responded. Contact

was established with either the student representative or the staff advisor with the remaining nineteen organizations.

A few days before the survey was launched, an email message was sent to each participant reminding them of the impending survey, reiterating the importance of the project and their participation in it, and requesting that they take ten minutes of their time to complete the survey when they received it. The survey was emailed to each participant on November 2, 2009. In an effort to continue recruiting from the organizations that only had a few members volunteer for the study or did not respond to participation requests, the survey link was sent to the student representatives for these organizations with a request to forward the survey link to their members.

To encourage participants to complete the survey, reminder emails were sent every three working days to those who had not yet taken the survey. The survey closed on November 16, 2009, for analysis. As part of the survey procedures and information, participants were notified on the last question of the survey that they could receive a copy of the findings when the study was completed. Emails entered voluntarily on the survey for the purpose of receiving the findings were removed from the database prior to analysis and stored in a secure location for future use.

Data Analysis

Once data collection concluded, the database was prepared for analysis. This included removing responses that did not meet the initial criteria. One unforeseen problem was the extended membership of some of the ASOs in the study. Because these organizations were professional in nature, some of the membership rosters included

graduate students, faculty members, and alumni. A total of 45 responses had to be removed from the database because of this issue. Another fifteen responses had to be removed because the participants did not have active status in the pre-selected organizations. And finally, eleven responses had to be removed because of incomplete information.

Several types of analysis were conducted in order to obtain relevant descriptive data for the research objectives and questions. All analysis was conducted using SPSS statistical software. Data analysis began with an examination of response rates and participant demographics by institution and ASO type. This was followed by a simple frequency analysis to address the first research objective of identifying where the SFIs had occurred. In addition, an analysis of the overall SFI frequency was conducted to determine how many participants had experienced any of the interaction in their ASOs, in their other college activities, and in both contexts. These overall interactions were analyzed by institutional size, classification, and organizational status to determine if there were any differences between groups. The comparisons were conducted using a Pearson chi-square analysis. The chi-square analysis was selected because it is a calculation technique that can address small sample sizes in independent groups (Spatz, 2005). Small sample sizes were expected in this study due to the varying nature of the organizational membership at each institution.

To answer the second research objective, several analysis techniques were employed. First, a simple frequency analysis was conducted to determine how often the interactions occurred for participants since they started college. Means and standard

deviations also were obtained to help describe the responses more thoroughly. Participants who never experienced the specific interactions were removed prior to analysis because they could not respond to the question of how often the interactions occurred.

Second, the quantity variable was recoded to indicate low quantity of 1 to 2 interactions and high quantity of 3 or more interactions. The rationale for recoding the variable was that more frequent interactions were associated with growth in personal and cognitive development (Endo & Harpel, 1982; Pascarella & Terenzini, 1975). A simple frequency analysis then was conducted in order to understand the categorized quantity of each SFI.

Once the frequency analysis concluded, specific comparisons were made between low and high quantity for interactions occurring in ASOs and those occurring in other college activities in order to determine whether or not differences existed. A chi square analysis was used to compare the groups. As suggested by Isaac and Michaels (1990), interactions that had fewer than five participants in their frequency count were not analyzed for differences because the cell sizes were too small to make comparisons. Several interactions could not be compared because of small cell sizes.

The process conducted for the quantity variable was repeated for the quality variable. A simple frequency analysis as well as means and standard deviations were obtained for the original responses. Participants who did not experience the interactions were removed from the analysis. Then, the variable was recoded to indicate a low quality of less than 10 minutes and a high quality of 10 minutes or more, which has been

used as a quality measure in previous studies (Johnson, 1997; Terenzini & Pascarella, 1980; Volkwein, et al., 1986). A simple frequency analysis was conducted on the re-categorized variable to better describe the overall status of interaction quality. Then, a chi square analysis was used to compare the quality of interactions in ASOs and other college activities. Similar to the quantity comparisons, some quality data could not be compared due to small cell sizes.

To answer the fourth research question, a composite score was calculated for participants who experienced each SFI. This score was obtained by multiplying the participant's quantity score by his/her quality score. The rationale for this approach was that existing research on student-faculty interactions emphasizes the importance of both quantity and quality measures (Endo & Harpel, 1982; Kuh & Hu, 2001; Pascarella, et al., 1983; Pascarella & Terenzini, 1979a; Pascarella & Terenzini, 1980b; Terenzini, et al., 1984a; Volkwein, et al., 1986) and some researchers highlighted the need for understanding the quantity of SFIs in relation to the quality of SFIs (Alderman, 2008; Sax, et al., 2005). While some of the previous studies looked at both quantity and quality as separate factors, none brought them together as one factor by which to measure SFIs.

It was this researcher's contention that generating one composite score would yield a more effective estimate of student-faculty interactions. For example, when examined as separate factors, quality and quantity of SFIs often yield the same results for student learning. Quality interactions, or those over 10 minutes in length, were found to contribute to intellectual development (Terenzini & Pascarella, 1980; Volkwein, et al.,

1986); personal development (Terenzini & Pascarella, 1980); and persistence (Johnson, 1997). Quantity interactions, or those occurring more frequently over time, also were found to contribute to intellectual development (Endo & Harpel, 1982); personal development (Endo & Harpel, 1982); and persistence (Johnson, 1997; Pascarella & Terenzini, 1975).

Because of the similarity in outcomes and the repeated findings that SFIs are mostly brief and infrequent for many students (Feldman & Newcomb, 1969; Jaasma & Koper, 1999; Lewallen, 1995; Nadler & Nadler, 2001), it can be logically concluded that something more powerful is occurring in these interactions that has yet to be identified. For example, students experiencing frequent and lengthy interactions with a faculty member would mostly exhibit greater benefits than students who had a one-time, brief encounter. In another example, students who repeatedly spend five minutes with a faculty member during the semester to ask about homework may not have the same kind of benefits as students who have one-time, hour-long conversation with a faculty member that covered personal, developmental issues. Thus, student learning from SFIs could very well be generated by the interaction of both quantity and quality. A composite score was one way to examine this possibility.

Prior to the calculation of each composite score, it was determined that the possible range was one to 25, with one being the lowest possible composite score (1 X 1) and 25 being the highest possible composite score (5 X 5). The arithmetic mean of the possible scores was nine. Once the composite scores were calculated for each SFI, means, standard deviations, and confidence intervals at the 95% level were calculated to

help describe the responses. To continue the descriptive analysis, the composite score was then recoded into two levels. Because nine was the arithmetic mean of the possible scores, a low composite score was defined as less than nine while a high composite score was defined as nine or more. A simple frequency analysis was then conducted to determine the composite score occurrences for each interaction. A chi square analysis was conducted to examine differences between ASOs and other college activities. Small cell sizes were again a problem for some of the interactions and analysis could not be successfully conducted for these interactions.

To answer the final research question in the second research objective, classification was recoded into two categories – underclassmen (freshmen, sophomores) and upperclassmen (juniors, seniors). A simple frequency analysis was conducted to determine the composite scores categories by classification for each interaction. A chi square analysis was conducted in order to analyze any differences that occurred between classification groups for ASOs and other college activities. There were not enough underclassmen participants to provide enough data for comparisons. Therefore, the chi square analysis was not conducted for some comparisons and the fifth research question could not be fully addressed.

For the final research objective and questions, a simple frequency analysis was conducted on the composite scores by organizational role (member, leader) and by institutional size (small, large) to help describe the distribution of responses. A chi square analysis then was conducted for each characteristic in order to identify any differences occurring for ASO interactions and the interactions occurring in other

college activities. Small cell sizes were an issue for some of the interactions and they could not be successfully analyzed.

CHAPTER IV

RESULTS

This chapter provides the results of the study. It is organized into ten sections. The first section addresses the demographics of the participants as well as their responses to some descriptive questions. The second through eighth sections address each of the research questions that were generated to help determine where SFIs were occurring along with the quality and quantity of those interactions. A ninth section discusses the limitations of the study while a tenth section provides an overview of the findings.

Purpose of the Study

The purpose of this study was to describe what kind of student-faculty interactions are occurring in the context of academic student organizations as well as identify the quality and quantity of such interactions and what factors are involved with meaningful interactions. The study also determined how these interactions might differ from those occurring in other college activities and how the factors of classification, organizational status, and institutional size relate to quality and quantity of interactions in both contexts.

Demographics of Participants

Institutional undergraduate populations for the 2009 fall semester were collected prior to the implementation of the survey instrument. Table 1 illustrates these populations as well as the participant numbers from each institution.

TABLE 1. Undergraduate Populations and Responses by Institution

Population and Participants	University of St. Thomas	McMurry University	Texas State University	Texas A&M University
Undergraduate Population	1,792	1,515	24,810	38,958
Participants	33	13	24	34

Demographics for participants also were calculated. Table 2 depicts the gender and classification by institution. As illustrated by the table, the survey participants were mostly female and had a junior or senior classification. For gender, it is a common problem in survey research conducted with college students for females to respond in greater proportion than males (Sax, Gilmartin, & Bryant, 2003; Underwood, Kim, & Matier, 2000). With such a high percentage of females responding, it is possible that results could be impacted in favor of more relationship-based interactions which have been recognized as prevalent among women (Gilligan, 1982).

TABLE 2. Gender and Classification by Institution

Organizational Type		University of St. Thomas (n=33)	McMurry University (n=13)	Texas State University (n=24)	Texas A&M University (n=34)
Gender	Female	94%	85%	83%	85%
	Male	6%	15%	17%	15%
Classification	Freshman	3%	8%	--	3%
	Sophomore	9%	8%	13%	12%
	Junior	36%	31%	17%	38%
	Senior	52%	54%	71%	47%

All participants (n=104) were asked what academic discipline their ASOs represented. Almost a third (32%) said psychology, 23% said chemistry, 23% said health, 12% said English, and 11% said education. Each participant was asked to estimate the active membership for their ASOs. Those estimates ranged from 4 to 44 members. Almost all of the participants (94%) had a faculty advisor for their ASO.

In addition, participants were asked if they were part of a formal living-learning community where they live with other students, take classes together, and engage in academic activities together. Only 8% (n=8) said they were in a living-learning community. Of those eight students, five said they interacted with faculty as part of the community. A final question asked participants about their status in the ASOs selected for the study. Over half (59%) were members while 41% were leaders.

Research Question 1

The first research question asked "what types of student-faculty interactions exist within academic student organizations and how do they compare to those that occur in other settings?" A simple frequency analysis, contained in Table 3, revealed that many participants asked faculty members for guidance on courses, academic programs, career plans, and feedback on assignments. The least cited interactions with faculty included attending athletic and cultural events, teaching class, being a guest in a faculty member's home, and working with faculty on a committee or project that was affiliated with a group. In terms of the ASO environment, all SFIs were experienced by a range of 2% to 62% of the participants. For other college activities, the range was 7% to 81%.

TABLE 3. Overall Occurrence of SFIs for All Study Participants

Student-Faculty Interaction	n	Occurred in ASOs	Occurred in Other College Activities	Occurred in Both ASOs and Other College Activities	Did not occur
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	104	6%	81%	6%	8%
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	104	10%	79%	7%	5%
Assisted a faculty member in teaching a class	103	3%	12%	1%	85%
Discussed ideas for a term paper or other class project with a faculty member	103	7%	70%	3%	20%
Had a faculty member advise or supervise you on a faculty research project	102	11%	31%	2%	56%
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	102	7%	40%	2%	51%
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	104	26%	19%	19%	36%
Met informally with faculty to discuss a campus issue or problem	103	16%	24%	6%	54%
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	103	22%	52%	15%	12%
Met informally with faculty to get basic information and advice about my academic program	102	17%	59%	13%	12%
Met informally with faculty to help resolve a personal problem	101	3%	32%	2%	63%
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	103	18%	38%	19%	25%
Was a guest in a professor's home for a meal or social function	103	11%	13%	3%	74%
Worked with a faculty member outside of class on a committee or project	102	12%	8%	3%	78%
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	102	2%	7%	--	91%
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	101	7%	11%	2%	80%
Had a faculty member supervise a student social function (e.g., party) that you attended	100	27%	18%	6%	49%
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	102	27%	7%	2%	65%
Had a faculty member help organize or attend a field trip with a group you were affiliated with	103	29%	15%	2%	54%
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	100	35%	11%	3%	51%
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	102	42%	11%	4%	43%
Had a faculty member attend meetings for a group you were affiliated with	101	60%	14%	4%	22%
Had a faculty member actively participate in meetings for a group you were affiliated with	103	62%	11%	4%	23%
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	101	18%	7%	1%	74%

Overall, 99% of participants had at least one interaction with faculty since they started college. Another 81% had at least one interaction with faculty within their ASO environment, and 96% had at least one interaction with faculty within their other college activities. Over three-quarters (78%) said they had interactions with faculty in both their ASO and other college activities.

The next step of analysis was to compare where the interactions had occurred by the different categories of participants. A chi square analysis was conducted for each comparison, and two significant results were found. Organizational status made a difference as to whether or not participants had any interactions with faculty within the context of their ASOs. As illustrated in Table 4, leaders were more likely than members to report SFIs in the ASO context and when the ASO context and other college activities were observed together. Institutional size and classification did not affect whether or not participants had any interactions with faculty or interactions in the two different contexts of ASOs and other college activities.

TABLE 4. Frequency of SFIs by Organizational Status

Type of Student-Faculty Interaction	Members	n	Leaders	n	χ^2
Experienced any SFI	100%	61	98%	43	
Experienced any SFI in the ASO context	71%	61	95%	43	**
Experienced any SFI in the Other College Activities context	97%	61	95%	43	
Experienced SFIs in both the ASO context and the Other College Activities context	67%	61	93%	43	**

df=1, * =p<0.05; ** =p<0.01

The findings reinforce previous research that two-thirds to almost all of students experience interactions with faculty while in college. However, the findings do not support conclusions made by past researchers that most interactions are occurring before or after class or during a faculty member's office hours. While the most frequently cited interactions could fall into this category, other interactions experienced by the participants in this study occurred outside of the classroom environment such as having coffee with a faculty member, attending a student social function, participating in organizational workshops or presentations, and attending organizational meetings. In addition, a majority of the participants experienced at least one interaction because of their involvement in an ASO, which is outside of the immediate classroom environment. It is clear from these data that there are more kinds of interactions occurring outside of the classroom environment than were previously recognized.

Research Question 2

The second research question asked "what is the quantity of student-faculty interactions within academic student organizations and how does it compare to those that occur in other settings?" First, a simple frequency analysis was conducted in order to obtain how frequently these interactions occurred since the participants started college. The scale used for the quantity questions was 1=1 Time, 2=2 Times, 3=3 Times, 4=4 Times, and 5=5 or More Times. Table 5 illustrates the responses along with the means and standard deviations for each interaction. Those who did not experience the interaction were removed from the analysis.

TABLE 5. Quantity of SFIs for All Study Participants Since They Started College

Student-Faculty Interaction	n	Mean (sd)	1 Time	2 Times	3 Times	4 Times	5 or More Times
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	98	4.00 (1.27)	3%	15%	15%	11%	55%
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	99	4.08 (1.36)	10%	5%	12%	12%	61%
Assisted a faculty member in teaching a class	23	2.52 (1.56)	39%	13%	26%	--	22%
Discussed ideas for a term paper or other class project with a faculty member	86	3.60 (1.42)	12%	13%	19%	17%	40%
Had a faculty member advise or supervise you on a faculty research project	42	3.07 (1.61)	26%	17%	10%	19%	29%
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	50	3.20 (1.69)	28%	10%	14%	10%	38%
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	65	3.20 (1.46)	14%	26%	15%	15%	29%
Met informally with faculty to discuss a campus issue or problem	47	2.79 (1.35)	19%	26%	32%	4%	19%
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	93	3.57 (1.51)	15%	10%	24%	7%	45%
Met informally with faculty to get basic information and advice about my academic program	90	3.83 (1.42)	12%	7%	17%	14%	50%
Met informally with faculty to help resolve a personal problem	42	2.83 (1.55)	29%	17%	21%	10%	24%
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	73	3.44 (1.56)	16%	16%	16%	8%	43%
Was a guest in a professor's home for a meal or social function	28	2.04 (1.26)	50%	18%	14%	14%	4%
Worked with a faculty member outside of class on a committee or project	29	2.90 (1.37)	17%	28%	21%	17%	17%
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	12	3.33 (1.23)	8%	17%	25%	33%	17%
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	22	2.32 (1.46)	41%	23%	14%	9%	14%
Had a faculty member supervise a student social function (e.g., party) that you attended	53	2.87 (1.47)	23%	25%	17%	15%	21%
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	39	2.79 (1.42)	28%	13%	23%	23%	13%
Had a faculty member help organize or attend a field trip with a group you were affiliated with	48	2.21 (1.25)	40%	23%	21%	10%	6%
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	53	2.72 (1.38)	25%	21%	30%	8%	17%
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	65	2.89 (1.48)	23%	22%	22%	11%	23%
Had a faculty member attend meetings for a group you were affiliated with	77	3.81 (1.41)	10%	10%	16%	16%	48%
Had a faculty member actively participate in meetings for a group you were affiliated with	75	3.72 (1.44)	11%	13%	16%	13%	47%
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	35	3.17 (1.62)	23%	17%	14%	11%	34%

The most frequent interactions were those relating to academic issues such as seeking advice for assignments or obtaining advice about an academic program. The next most frequently occurring interactions were having faculty members attend and actively participate in meetings for groups with which students are involved. The least frequent interactions were going to a faculty's home for a function, having faculty help organize a field trip, and attending an arts or cultural event with faculty. The quantity results could be influenced by the characteristics of the millennial generation (Strange, 2004). This generation may see faculty members as authority figures who have rules that students want to understand and follow in their academic programs, so they will seek them out for advice. Or they may prefer to interact with faculty only when they are in the company of their peers such as organization meetings rather than spending time with them in smaller environments such as the faculty member's home. Future studies may need to examine the role of generational characteristics to determine whether or not it has an impact on how students describe and prefer interactions with faculty.

In order to conduct comparisons and provide additional descriptive data, the responses were re-categorized into low quantity (1 to 2) and high quantity (3 or more) interactions. Table 6 demonstrates that the majority of the participants who experienced each interaction did so in high quantity since they started college. However, most of the participants in this study were upperclassmen, meaning that interactions occurred over three or four years and would amount to one or two interactions per year. This is infrequent when a student's entire college career is considered.

Following the re-categorization of the quantity variable, a chi-square analysis was conducted to determine if differences existed between the quantity of SFIs for the ASO environment and other college activities. Two specific interactions could not be successfully analyzed due to small cell sizes in the ASO context. The analysis, which can be viewed in Table 7, immediately following Table 6, revealed that there were no significant differences for any of the interactions in terms of quantity. When the interactions occurred in both contexts, the majority of the participants experienced them in high quantity.

From this study, it does not appear that quantity significantly differs for SFIs that occur in either ASOs or other college activities. However, there appears to be a pattern of responses that could be explored further. In 17 of the 24 listed interactions, the participants who experienced the interactions in an ASO environment had a greater portion of high quantity interactions than participants who experienced the interactions in their other college activities. It may be that students who join academic student organizations have a few more opportunities to interact with faculty than students who do not join these organizations. Another study with a large number of participants might help determine if this pattern reoccurs or is just an anomaly for this study.

TABLE 6. Low and High Quantity SFIs for All Study Participants

Student-Faculty Interaction	n	Low Quantity: 1-2 Times	High Quantity: 3 or More Times
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	98	15%	85%
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	99	5%	95%
Assisted a faculty member in teaching a class	23	13%	87%
Discussed ideas for a term paper or other class project with a faculty member	86	13%	87%
Had a faculty member advise or supervise you on a faculty research project	42	17%	83%
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	50	10%	90%
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	65	26%	74%
Met informally with faculty to discuss a campus issue or problem	47	26%	75%
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	93	10%	90%
Met informally with faculty to get basic information and advice about my academic program	90	7%	93%
Met informally with faculty to help resolve a personal problem	42	17%	83%
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	73	18%	82%
Was a guest in a professor's home for a meal or social function	28	18%	82%
Worked with a faculty member outside of class on a committee or project	29	28%	72%
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	12	17%	83%
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	22	27%	73%
Had a faculty member supervise a student social function (e.g., party) that you attended	53	25%	76%
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	39	15%	85%
Had a faculty member help organize or attend a field trip with a group you were affiliated with	48	23%	77%
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	53	21%	79%
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	65	22%	79%
Had a faculty member attend meetings for a group you were affiliated with	77	10%	90%
Had a faculty member actively participate in meetings for a group you were affiliated with	75	13%	87%
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	35	17%	83%

TABLE 7. Quantity of SFIs for ASOs and Other College Activities

Student-Faculty Interaction	ASOs			Other College Activities			
	Low Quantity	High Quantity	n	Low Quantity	High Quantity	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	8%	92%	12	15%	85%	88	.36
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	0%	100%	17	6%	94%	86	1.09
Assisted a faculty member in teaching a class	0%	100%	4	25%	75%	12	***
Discussed ideas for a term paper or other class project with a faculty member	11%	89%	9	11%	89%	71	.00
Had a faculty member advise or supervise you on a faculty research project	0%	100%	13	22%	79%	27	3.40
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	0%	100%	8	13%	87%	39	1.15
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	17%	83%	46	31%	69%	36	1.97
Met informally with faculty to discuss a campus issue or problem	32%	68%	19	30%	70%	23	.00
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	5%	95%	38	9%	91%	65	.53
Met informally with faculty to get basic information and advice about my academic program	3%	97%	30	9%	91%	67	.98
Met informally with faculty to help resolve a personal problem	20%	80%	5	19%	81%	31	.00
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	16%	84%	37	13%	87%	54	.19
Was a guest in a professor's home for a meal or social function	15%	85%	13	33%	67%	15	1.20
Worked with a faculty member outside of class on a committee or project	18%	82%	11	40%	60%	10	1.22
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	0%	100%	2	40%	60%	5	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	14%	86%	7	22%	78%	9	.16
Had a faculty member supervise a student social function (e.g., party) that you attended	28%	72%	32	22%	78%	18	.21
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	16%	84%	25	25%	75%	8	.33
Had a faculty member help organize or attend a field trip with a group you were affiliated with	15%	85%	27	39%	62%	13	2.81
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	24%	77%	34	20%	80%	10	.06
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	21%	80%	44	15%	85%	13	.17
Had a faculty member attend meetings for a group you were affiliated with	10%	90%	60	19%	81%	16	.93
Had a faculty member actively participate in meetings for a group you were affiliated with	11%	89%	62	31%	69%	13	3.26
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	6%	94%	16	14%	86%	7	.40

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

Research Question 3

The third research question asked "what is the quality of student-faculty interactions within academic student organizations and how does it compare to those that occur in other settings?" A simple frequency analysis first was conducted in order to demonstrate the quality of these interactions since the participants started college. The scale used for the quality questions was 1=Less than 10 Minutes, 2=10 to 15 Minutes, 3=16 to 30 Minutes, 4=31 to 60 minutes, and 5=More than 60 Minutes. Table 8 illustrates the responses along with the means and standard deviations for each interaction. Those who did not experience the interaction were not included in the analysis.

The highest quality interactions tended to be functions that were designed to be longer in length such as social functions and meetings. The lowest quality interactions were those involving informal discussions for campus issues or personal guidance that could vary in length.

TABLE 8. Quality of SFIs for All Study Participants

Student-Faculty Interaction	n	Mean (sd)	Less than 10 minutes	10 to 15 minutes	16 to 30 minutes	31 to 60 minutes	More than 60 minutes
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	91	2.67 (1.27)	21%	30%	21%	19%	10%
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	95	2.63 (1.19)	20%	28%	27%	17%	7%
Assisted a faculty member in teaching a class	25	2.96 (1.46)	20%	24%	16%	20%	20%
Discussed ideas for a term paper or other class project with a faculty member	80	2.53 (1.19)	24%	29%	24%	19%	5%
Had a faculty member advise or supervise you on a faculty research project	41	3.29 (1.45)	17%	12%	24%	17%	29%
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	52	3.15 (1.45)	17%	21%	14%	25%	23%
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	61	3.57 (1.28)	12%	10%	13%	41%	25%
Met informally with faculty to discuss a campus issue or problem	42	2.40 (1.33)	33%	24%	21%	12%	10%
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	85	3.02 (1.19)	12%	22%	28%	27%	11%
Met informally with faculty to get basic information and advice about my academic program	83	2.81 (1.16)	15%	28%	28%	23%	7%
Met informally with faculty to help resolve a personal problem	40	2.53 (1.18)	25%	23%	33%	15%	5%
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	67	2.51 (1.28)	28%	24%	25%	13%	9%
Was a guest in a professor's home for a meal or social function	27	3.96 (1.53)	15%	7%	4%	15%	59%
Worked with a faculty member outside of class on a committee or project	27	3.37 (1.42)	11%	22%	15%	22%	30%
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	13	2.69 (1.49)	31%	15%	23%	15%	15%
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	19	3.37 (1.34)	5%	32%	11%	26%	26%
Had a faculty member supervise a student social function (e.g., party) that you attended	47	4.04 (1.23)	4%	11%	15%	17%	53%
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	38	2.66 (1.36)	29%	13%	34%	11%	13%
Had a faculty member help organize or attend a field trip with a group you were affiliated with	44	3.20 (1.37)	11%	23%	27%	11%	27%
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	49	3.10 (1.30)	14%	14%	39%	12%	20%
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	59	3.56 (1.09)	3%	14%	29%	32%	22%
Had a faculty member attend meetings for a group you were affiliated with	74	3.81 (.99)	1%	10%	23%	39%	27%
Had a faculty member actively participate in meetings for a group you were affiliated with	71	3.63 (1.16)	6%	14%	16%	41%	24%
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	32	3.13 (1.41)	16%	22%	19%	22%	22%

In order to conduct comparisons and provide additional descriptive data, the responses were re-categorized into low quality (less than 10 minutes) and high quality (10 minutes or more) interactions. Table 9 demonstrates that the majority of the participants had high quality interactions with faculty since they started college. This contradicts previous literature that concludes that most interactions between students and faculty last less than 10 minutes (Jaasma & Koper, 1999; Lewallen, 1995).

Following the re-categorization of the quality variable, a chi-square analysis was conducted to determine if differences existed between the quality of SFIs for the ASO environment and other college activities. The same two interactions that presented cell size problems for the quantity analysis also caused the same problems for the quality analysis. For the rest of the interactions, comparisons were made and can be viewed in Table 10, depicted immediately after Table 9. The results revealed that there were no significant differences for any of the interactions in terms of quality. When the interactions occurred in both contexts, the majority of the participants had high quality interactions.

TABLE 9. Low and High Quality SFIs for All Study Participants

Student-Faculty Interaction	n	Low Quality: Less Than 10 Minutes	High Quality: 10 Minutes or More
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	91	21%	79%
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	95	21%	79%
Assisted a faculty member in teaching a class	25	20%	80%
Discussed ideas for a term paper or other class project with a faculty member	80	24%	76%
Had a faculty member advise or supervise you on a faculty research project	41	17%	83%
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	52	19%	81%
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	61	12%	89%
Met informally with faculty to discuss a campus issue or problem	42	33%	67%
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	85	12%	88%
Met informally with faculty to get basic information and advice about my academic program	83	16%	84%
Met informally with faculty to help resolve a personal problem	40	25%	75%
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	67	28%	72%
Was a guest in a professor's home for a meal or social function	27	15%	85%
Worked with a faculty member outside of class on a committee or project	27	11%	89%
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	13	31%	69%
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	19	5%	95%
Had a faculty member supervise a student social function (e.g., party) that you attended	47	4%	96%
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	38	29%	71%
Had a faculty member help organize or attend a field trip with a group you were affiliated with	44	11%	89%
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	49	14%	86%
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	59	3%	97%
Had a faculty member attend meetings for a group you were affiliated with	74	1%	99%
Had a faculty member actively participate in meetings for a group you were affiliated with	71	6%	94%
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	32	19%	81%

TABLE 10. Quality of SFIs for ASOs and Other College Activities

Student-Faculty Interaction	ASOs			Other College Activities			
	Low Quality	High Quality	n	Low Quality	High Quality	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	25%	75%	12	21%	79%	82	.11
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	12%	88%	17	22%	78%	82	.91
Assisted a faculty member in teaching a class	25%	75%	4	9%	91%	11	***
Discussed ideas for a term paper or other class project with a faculty member	22%	78%	9	22%	79%	65	.00
Had a faculty member advise or supervise you on a faculty research project	17%	83%	12	12%	89%	26	.19
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	13%	88%	8	11%	89%	37	.20
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	8%	93%	40	9%	91%	35	.03
Met informally with faculty to discuss a campus issue or problem	32%	68%	19	40%	60%	20	.30
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	9%	91%	34	12%	88%	60	.19
Met informally with faculty to get basic information and advice about my academic program	11%	89%	27	11%	89%	62	.00
Met informally with faculty to help resolve a personal problem	20%	80%	5	14%	86%	28	.11
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	24%	76%	33	26%	74%	50	.03
Was a guest in a professor's home for a meal or social function	8%	92%	12	7%	93%	14	.01
Worked with a faculty member outside of class on a committee or project	11%	89%	9	14%	86%	7	.04
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	50%	50%	2	0%	100%	4	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	17%	83%	6	0%	100%	7	1.26
Had a faculty member supervise a student social function (e.g., party) that you attended	4%	96%	27	6%	94%	17	.11
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	26%	74%	23	38%	63%	8	.38
Had a faculty member help organize or attend a field trip with a group you were affiliated with	12%	88%	25	0%	100%	11	1.44
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	10%	90%	30	11%	89%	9	.01
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	2%	98%	41	0%	100%	11	.27
Had a faculty member attend meetings for a group you were affiliated with	2%	98%	55	0%	100%	15	.28
Had a faculty member actively participate in meetings for a group you were affiliated with	5%	95%	57	8%	92%	12	.17
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	7%	93%	15	0%	100%	5	.35

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

Research Question 4

The fourth research question asked "what is the combined quantity and quality of student-faculty interactions within academic student organizations and how does it compare to those that occur in other settings?" This was an opportunity to redefine how interactions were viewed based on the interaction of quantity and quality measures. To determine the composite scores, the quantity and quality responses were multiplied for each interaction, per participant. For instance, a participant who reported a one time interaction with a faculty member (quantity rating of 1) that lasted for less than 10 minutes (quality rating of 1) would have a composite score of 1 and would be considered a low composite interaction. A participant who reported more than five interactions with a faculty member (quantity rating of 5) that lasted for an average of 60 minutes or more (quality rating of 5) would have a composite score of 25 and would be considered a high composite interaction. Composite scores ranged from 1 to 25, with an arithmetic mean of 9.

Once all composite scores were calculated, means and standard deviations were computed for each interaction. Considering the overall arithmetic mean of the possible composite scores, which was 9, seven interactions had means that fell below the arithmetic mean, another three had means that were around the arithmetic mean, and fourteen had means above the arithmetic mean. Based on where the interactions were in comparison to the arithmetic mean, more than half of the interactions were in the high quantity – high quality range.

The overall mean and standard deviation were calculated for all of the composite scores for each interaction. Only one interaction was observed to be outside the 95% confidence interval – meeting informally with faculty to help resolve a personal problem. This interaction was below the lower control limit and rated in the lower portion of both the quantity and quality measures. While this is an interaction that appeared in the first studies regarding SFIs and several subsequent studies (See Appendix A), it does not seem to be an interaction that has high quantity and quality measures for this study's participants.

On the high quantity – high quality side, the interactions focused on having a faculty member attend meetings and actively participate in them had higher composite scores than most other interactions yet the means were within the control limits. Table 11 illustrates the composite score means for the overall occurrence of SFIs for the participants.

TABLE 11. Composite Score Means for Overall SFIs – Descending Order

Student-Faculty Interaction	n	Mean (sd)	Outside 95% Confidence Level
Had a faculty member attend meetings for a group you were affiliated with	70	14.56 (7.39)	No
Had a faculty member actively participate in meetings for a group you were affiliated with	67	14.28 (7.69)	No
Had a faculty member supervise a student social function (e.g., party) that you attended	45	11.07 (6.42)	No
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	57	11.07 (6.45)	No
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	59	11.97 (7.36)	No
Met informally with faculty to get basic information and advice about my academic program	82	11.35 (6.81)	No
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	93	11.43 (7.01)	No
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	90	11.38 (7.10)	No
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	84	11.50 (7.32)	No
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	26	12.04 (8.14)	No
Discussed ideas for a term paper or other class project with a faculty member	76	10.01 (6.55)	No
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	44	8.73 (5.48)	No
Worked with a faculty member outside of class on a committee or project	22	9.45 (6.41)	No
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	10	11.00 (8.10)	No
Had a faculty member advise or supervise you on a faculty research project	37	10.95 (8.31)	No
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	46	10.57 (8.03)	No
Had a faculty member help organize or attend a field trip with a group you were affiliated with	39	7.44 (5.06)	No
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	65	9.25 (6.98)	No
Was a guest in a professor's home for a meal or social function	26	7.31 (5.24)	No
Met informally with faculty to discuss a campus issue or problem	39	6.69 (5.15)	No
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	33	7.82 (6.32)	No
Assisted a faculty member in teaching a class	20	9.50 (8.10)	No
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	17	8.18 (7.03)	No
Met informally with faculty to help resolve a personal problem	65	3.86 (6.27)	Yes

Overall Mean – 10.05, Standard Deviation – 2.40

In order to conduct comparisons and provide additional description, the responses were re-categorized into low composite (less than 9) and high composite (9 or more) interactions. Table 12 demonstrates that eleven interactions could be classified as majority low composite, with one interaction that was evenly split between low and high composite scores. Table 13 depicts the findings that twelve interactions could be classified as majority high composite.

Based on the results, students are obtaining high composite interactions with faculty during organizational meetings and events, personal meetings centered on academic and career issues, and socially-based interactions. The low composite interactions centered on infrequent activities such as research projects, teaching courses, and attending athletic events. However, the interactions also included activities previously explored by other researchers such as discussing current events, personal issues, and going to a faculty member's home for an event.

TABLE 12. Combined Quantity and Quality of SFIs for Study Participants – Low Composite – Descending Order

Student-Faculty Interaction	n	Low Composite: Less Than 9
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	17	82%
Was a guest in a professor's home for a meal or social function	26	69%
Had a faculty member help organize or attend a field trip with a group you were affiliated with	39	67%
Met informally with faculty to discuss a campus issue or problem	39	62%
Met informally with faculty to help resolve a personal problem	36	61%
Worked with a faculty member outside of class on a committee or project	22	59%
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	33	58%
Had a faculty member advise or supervise you on a faculty research project	37	57%
Assisted a faculty member in teaching a class	20	55%
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	46	52%
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	65	51%
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	10	50%
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	44	48%
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	59	44%
Discussed ideas for a term paper or other class project with a faculty member	76	42%
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	26	42%
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	90	41%
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	57	40%
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	93	39%
Had a faculty member supervise a student social function (e.g., party) that you attended	45	38%
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	84	36%
Met informally with faculty to get basic information and advice about my academic program	82	34%
Had a faculty member actively participate in meetings for a group you were affiliated with	67	31%
Had a faculty member attend meetings for a group you were affiliated with	70	27%

TABLE 13. Combined Quantity and Quality of SFIs for Study Participants – High Composite – Descending Order

Student-Faculty Interaction	n	High Composite: 9 or More
Had a faculty member attend meetings for a group you were affiliated with	70	73%
Had a faculty member actively participate in meetings for a group you were affiliated with	67	69%
Met informally with faculty to get basic information and advice about my academic program	82	66%
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	84	64%
Had a faculty member supervise a student social function (e.g., party) that you attended	45	62%
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	93	61%
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	57	60%
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	90	59%
Discussed ideas for a term paper or other class project with a faculty member	76	58%
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	26	58%
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	59	56%
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	44	52%
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	10	50%
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	65	49%
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	46	48%
Assisted a faculty member in teaching a class	20	45%
Had a faculty member advise or supervise you on a faculty research project	37	43%
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	33	42%
Worked with a faculty member outside of class on a committee or project	22	41%
Met informally with faculty to discuss a campus issue or problem	39	39%
Met informally with faculty to help resolve a personal problem	36	39%
Had a faculty member help organize or attend a field trip with a group you were affiliated with	39	33%
Was a guest in a professor's home for a meal or social function	26	31%
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	17	18%

Following the re-categorization of the composite scores, a chi-square analysis was conducted to determine if differences existed between the ASO environment and other college activities. The athletic events interaction and the teaching class interaction again had to be dropped from analysis due to small cell size. For the rest of the interactions, comparisons were made and can be viewed in Table 14. Only one significant result was discovered and involved students working with faculty members on a student research project. Students were more likely to have a high composite score if they obtained the interaction through their ASO.

While most of the interactions did not differ significantly between contexts, there was one pattern worth noting. In eleven interactions, the participants who experienced the interactions in an ASO environment had a greater portion of high composite interactions than did participants who experienced the interactions in their other college activities. These interactions included student and faculty research projects, seeking advice on academic matters, attending and participating in organizational meetings and events, and discussing personal issues or campus events. In three interactions, the pattern was reversed and students tended to have a greater portion of high composite interactions if they occurred because of other collegiate activities. These interactions included working with faculty on a committee or project (within an organizational context and in a general context) and being a guest in a faculty member's home.

TABLE 14. Combined Quantity and Quality of SFIs for ASOs and Other College Activities

Student-Faculty Interaction	ASOs Low Composite	ASOs High Composite	n	Other College Activities Low Composite	Other College Activities High Composite	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	25%	75%	12	43%	57%	81	1.43
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	18%	82%	17	41%	59%	81	3.22
Assisted a faculty member in teaching a class	50%	50%	4	36%	64%	11	***
Discussed ideas for a term paper or other class project with a faculty member	33%	67%	9	42%	59%	65	.22
Had a faculty member advise or supervise you on a faculty research project	42%	58%	12	58%	42%	24	.89
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	13%	88%	8	53%	47%	36	4.28*
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	30%	70%	40	43%	57%	35	1.34
Met informally with faculty to discuss a campus issue or problem	56%	44%	18	75%	25%	20	1.59
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	35%	65%	34	32%	68%	60	.13
Met informally with faculty to get basic information and advice about my academic program	26%	74%	27	30%	70%	63	.17
Met informally with faculty to help resolve a personal problem	40%	60%	5	57%	43%	28	.50
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	41%	59%	32	50%	50%	50	.69
Was a guest in a professor's home for a meal or social function	67%	33%	12	50%	50%	14	.74
Worked with a faculty member outside of class on a committee or project	67%	33%	9	43%	57%	7	.91
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	50%	50%	2	25%	75%	4	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	68%	33%	6	71%	29%	7	.03
Had a faculty member supervise a student social function (e.g., party) that you attended	30%	70%	27	38%	63%	16	.28
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	50%	50%	22	63%	38%	8	.37
Had a faculty member help organize or attend a field trip with a group you were affiliated with	53%	47%	15	50%	50%	8	.02
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	37%	63%	30	33%	67%	9	.03
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	29%	71%	41	46%	55%	11	1.03
Had a faculty member attend meetings for a group you were affiliated with	21%	79%	53	47%	53%	15	4.03
Had a faculty member actively participate in meetings for a group you were affiliated with	27%	73%	55	46%	55%	11	1.44
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	40%	60%	15	20%	80%	5	.66

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

Based on the results, generating a composite score from the quantity and quality features of SFIs may need to be explored further as a way to measure meaningful interactions. Some of the interactions promoted by previous researchers (See Appendix A) as powerful were included in the high composite category such as meeting with faculty to discuss academic and career topics and interacting with them in a social setting. However, other previously cited powerful interactions (See Appendix A) fell into the low composite category such as working on research projects together, visiting a faculty member's home, and discussing personal issues with a faculty member. Further exploration may help determine why these interactions did not end up in the high composite category if they were previously defined as powerful.

The results of this study also revealed the possibility that some SFIs that were not addressed by early researchers may offer opportunities for meaningful interactions. For example, attending and participating in organizational meetings was researched for the first time in 2004 (Einarson & Clarkberg, 2004), so not much is known regarding what kind of benefits this setting can provide. However, it appears from this study that interactions occurring within the context of organizations, especially ASOs, may increase the likelihood that students and faculty will engage in meaningful interactions. This may be that the ASO context provides a comfortable environment that is based on shared interests, all of which are necessary to build powerful relationships (Cotten & Wilson, 2006; Endo & Harpel, 1982). Further research of these contexts could be beneficial to understanding what happens on a modern campus and where students and faculty members could naturally interact in the future.

Research Question 5

The fifth research question asked "what are the differences between classifications for the quantity and quality of student-faculty interactions within academic student organizations and how do they compare to those that occur in other settings?" However, the data were difficult to analyze because of the low number of freshmen and sophomores who participated in the study. The low participation rate by underclassmen may be a recurring challenge for researchers trying to study ASOs. Existing literature explains that upperclassmen may naturally gravitate to activities that provide additional career development opportunities whereas underclassmen are content to explore other activities (Alderman, 2008; Cotten & Wilson, 2006; Holzweiss, et al., 2008; Terenzini, et al., 1984a). It may be a natural consequence of conducting research on ASOs that participants will be limited to junior and senior classifications.

While most analysis could not be conducted due to the low participation rate by underclassmen, an attempt was made to explore classification further by comparing underclassmen (freshmen and sophomores) and upperclassmen (juniors and seniors) regarding the frequency of SFIs in the ASO and other college activities contexts. A chi-square analysis was used to compare the groups and can be viewed in Table 15. No significant differences were discovered between classification groups although it does appear that upperclassmen are trending towards more SFIs in the ASO context than underclassmen.

TABLE 15. Frequency of SFIs by Classification

Type of Student-Faculty Interaction	Underclassmen	n	Upperclassmen	n	χ^2
Experienced any SFI	100%	13	99%	90	.15
Experienced any SFI in the ASO context	69%	13	83%	90	1.50
Experienced any SFI in the Other College Activities context	100%	13	96%	90	.60
Experienced SFIs in both the ASO context and the Other College Activities context	69%	13	80%	90	.78

df=1, * =p<0.05; ** =p<0.01

In addition to the overall SFI frequencies, a chi-square analysis was used to compare frequency differences between the two contextual environments. Cell size was an issue for some of the interactions. In addition to attending athletic events and teaching class, two more interactions had to be dropped from analysis because of small cell sizes. These interactions were attending arts or cultural events and working on a committee or project sponsored by a group with which they were affiliated. For the rest of the interactions, comparisons were made and can be viewed in Table 16. No significant differences were discovered between classification groups and no patterns were observed.

TABLE 16. Occurrence of SFIs in ASOs and Other College Activities by Classification

Student-Faculty Interaction	ASOs Underclassmen	ASOs Upperclassmen	n	Other College Activities Underclassmen	Other College Activities Upperclassmen	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	0%	100%	12	14%	87%	89	1.84
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	6%	94%	17	13%	88%	88	.62
Assisted a faculty member in teaching a class	0%	100%	4	8%	92%	13	***
Discussed ideas for a term paper or other class project with a faculty member	10%	90%	10	10%	91%	74	.00
Had a faculty member advise or supervise you on a faculty research project	8%	92%	13	6%	94%	33	.04
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	0%	100%	9	5%	95%	43	.44
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	2%	98%	47	8%	92%	40	1.42
Met informally with faculty to discuss a campus issue or problem	0%	100%	22	10%	90%	30	2.34
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	11%	90%	38	13%	87%	67	.19
Met informally with faculty to get basic information and advice about my academic program	10%	90%	30	11%	89%	72	.03
Met informally with faculty to help resolve a personal problem	0%	100%	5	3%	97%	33	.16
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	8%	92%	38	9%	91%	58	.02
Was a guest in a professor's home for a meal or social function	14%	86%	14	6%	94%	16	.54
Worked with a faculty member outside of class on a committee or project	13%	87%	15	0%	100%	11	1.59
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	0%	100%	2	0%	100%	7	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	0%	100%	9	0%	100%	13	***
Had a faculty member supervise a student social function (e.g., party) that you attended	6%	94%	33	8%	92%	24	.11
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	3%	97%	29	0%	100%	9	.32
Had a faculty member help organize or attend a field trip with a group you were affiliated with	13%	88%	32	0%	100%	17	2.31
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	5%	95%	38	0%	100%	14	.77
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	7%	93%	43	18%	82%	11	1.31
Had a faculty member attend meetings for a group you were affiliated with	8%	92%	65	17%	83%	18	1.30
Had a faculty member actively participate in meetings for a group you were affiliated with	7%	93%	68	20%	80%	15	2.26
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	0%	100%	19	0%	100%	8	***

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

It is difficult to identify any trends for classification due to the low participation rate of underclassmen. This study's results suggest that there are no differences between underclassmen and upperclassmen in terms of the frequency of interactions they may have with faculty in the different contextual environments. However, a stronger response rate from all classifications is needed before any patterns can be identified.

Research Question 6

The sixth research question asked "does the quantity and quality of student-faculty interactions in academic student organizations differ by institutional size and how do they compare to those that occur in other settings?" The first analysis examined differences between institutions for the overall frequency of SFIs that participants experienced in various contextual environments. Table 17 reveals no significant differences between small and large colleges although it is interesting to note that small colleges appeared to have more SFIs in the ASO context than large colleges. This supports the existing literature that finds small colleges may have more opportunities for informal interactions (Kezar & Kinzie, 2006; Pike & Kuh, 2005).

TABLE 17. Frequency of SFIs by Institutional Size

Type of Student-Faculty Interaction	Small College	n	Large College	n	χ^2
Experienced any SFI	98%	45	100%	58	1.30
Experienced any SFI in the ASO context	88%	45	76%	58	2.86
Experienced any SFI in the Other College Activities context	93%	45	98%	58	1.66
Experienced SFIs in both the ASO context and the Other College Activities context	84%	45	74%	58	1.60

df=1, * =p<0.05; ** =p<0.01

Following the overall analysis of interactions experienced, each interaction was then analyzed for differences using the chi-square statistic. The interactions dealing with athletic events and teaching a class could not be computed due to small cell sizes. Table 18 illustrates that one significant difference was observed (Asking a faculty member for guidance, $p \leq .05$). For the interaction centering on asking a faculty member for advice related to an academic course, participants attending small colleges were more likely to experience the interaction in the ASO context while participants attending large colleges were more likely to experience the interaction through their other college activities. While not statistically significant, the same pattern was observed for seven more interactions including working on research projects; discussing assignments, campus issues, academic concerns, and career plans; and working on a committee or project sponsored by a group with which they are affiliated.

In addition to this pattern, institutional size appeared to have some influence on other interactions. Participants from small colleges had a greater proportion of ASO interactions in the areas of being a guest in a faculty member's home and discussing personal problems. In contrast, participants from large colleges had a greater proportion of ASO interactions in the areas of working with faculty on a committee or project, inviting a faculty member to speak at an event, and hearing a faculty member speak at a presentation or workshop.

TABLE 18. Occurrence of SFIs for ASOs and Other College Activities by Institutional Size

Student-Faculty Interaction	ASOs Small College	Large College	n	Other College Activities Small College	Large College	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	42%	58%	12	42%	58%	89	.00
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	71%	29%	17	39%	61%	88	5.91*
Assisted a faculty member in teaching a class	100%	0%	4	54%	46%	13	***
Discussed ideas for a term paper or other class project with a faculty member	60%	40%	10	47%	53%	74	.59
Had a faculty member advise or supervise you on a faculty research project	62%	39%	13	46%	55%	33	.97
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	78%	22%	9	49%	51%	43	2.51
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	47%	53%	47	45%	55%	40	.03
Met informally with faculty to discuss a campus issue or problem	64%	36%	22	47%	53%	30	1.47
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	58%	42%	38	40%	60%	67	3.02
Met informally with faculty to get basic information and advice about my academic program	57%	43%	30	42%	58%	72	1.92
Met informally with faculty to help resolve a personal problem	80%	20%	5	55%	46%	33	1.15
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	47%	53%	38	48%	52%	58	.01
Was a guest in a professor's home for a meal or social function	79%	21%	14	56%	44%	16	1.67
Worked with a faculty member outside of class on a committee or project	47%	53%	15	36%	64%	11	.28
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	100%	0%	2	71%	29%	7	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	33%	67%	9	69%	31%	13	2.76
Had a faculty member supervise a student social function (e.g., party) that you attended	46%	55%	33	50%	50%	24	.12
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	45%	55%	29	33%	67%	9	.37
Had a faculty member help organize or attend a field trip with a group you were affiliated with	41%	59%	32	59%	41%	17	1.48
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	47%	53%	38	57%	43%	14	.39
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	49%	51%	43	36%	64%	11	.55
Had a faculty member attend meetings for a group you were affiliated with	48%	52%	65	50%	50%	18	.03
Had a faculty member actively participate in meetings for a group you were affiliated with	50%	50%	68	53%	47%	15	.06
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	68%	32%	19	38%	63%	8	2.23

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

In the next step of analysis, the composite scores for each interaction were compared to determine whether or not differences existed based on institutional size. Table 19 contains the results for interactions that occurred within the ASO context. Cell size was a problem for eight interactions and those could not be compared. These interactions included teaching a class, attending athletic and cultural events, being a guest in a faculty member's home, working on a committee or project, working on a student research project, and discussing personal issues or ideas for a class project.

For the remaining interactions, one significant difference was observed. Participants from small colleges were more likely to have a high composite score when the interaction involved discussing current events. Participants from large colleges were more likely to have a low composite score for this interaction. In most other interactions, it was common for participants from both types of institutions to have high composite scores from their ASO-based interactions.

Comparisons were then conducted for interactions occurring because of other college activities. The results can be found in Table 20, which immediately follows Table 19. Cell size was a problem for eight interactions but some of those interactions differed from those identified for the ASO context. Those focused on activities within a group context such as attending a field trip, organizing a presentation for the group, having a faculty member speak at a group event, and working with a faculty member on a committee or project sponsored by a group. For the interactions that could be compared, no significant differences were found between small and large institutions and no discernible patterns were observed.

TABLE 19. Combined Quantity and Quality of SFIs for ASOs by Institutional Size

Student-Faculty Interaction	Small College Low Composite	Small College High Composite	n	Large College Low Composite	Large College High Composite	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	20%	80%	5	29%	71%	7	.11
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	17%	83%	12	20%	80%	5	.03
Assisted a faculty member in teaching a class	50%	50%	4	0%	0%	0	***
Discussed ideas for a term paper or other class project with a faculty member	33%	67%	6	33%	675	3	***
Had a faculty member advise or supervise you on a faculty research project	29%	71%	7	60%	40%	5	1.19
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	17%	83%	6	0%	100%	2	***
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	30%	70%	30	30%	70%	20	.00
Met informally with faculty to discuss a campus issue or problem	42%	58%	12	83%	17%	6	2.81
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	21%	79%	19	53%	47%	15	3.83
Met informally with faculty to get basic information and advice about my academic program	27%	73%	15	25%	75%	12	.01
Met informally with faculty to help resolve a personal problem	50%	50%	2	0%	100%	1	***
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	19%	81%	16	63%	38%	16	6.35*
Was a guest in a professor's home for a meal or social function	60%	40%	10	100%	0%	2	***
Worked with a faculty member outside of class on a committee or project	50%	50%	4	80%	20%	5	***
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	50%	50%	2	0%	0%	0	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	50%	50%	2	75%	25%	4	***
Had a faculty member supervise a student social function (e.g., party) that you attended	25%	75%	12	33%	67%	15	.22
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	36%	64%	11	64%	36%	11	1.64
Had a faculty member help organize or attend a field trip with a group you were affiliated with	50%	50%	6	56%	44%	9	.05
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	33%	67%	15	40%	60%	15	.14
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	32%	68%	19	27%	73%	22	.09
Had a faculty member attend meetings for a group you were affiliated with	17%	83%	23	23%	77%	30	.28
Had a faculty member actively participate in meetings for a group you were affiliated with	19%	82%	27	36%	64%	28	2.05
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	33%	67%	9	50%	50%	6	.42

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

TABLE 20. Combined Quantity and Quality of SFIs for Other College Activities by Institutional Size

Student-Faculty Interaction	Small College Low Composite	Small College High Composite	n	Large College Low Composite	Large College High Composite	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	34%	66%	32	49%	51%	49	1.68
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	39%	61%	31	43%	57%	49	.14
Assisted a faculty member in teaching a class	40%	60%	5	33%	67%	6	.05
Discussed ideas for a term paper or other class project with a faculty member	38%	62%	29	43%	57%	35	.16
Had a faculty member advise or supervise you on a faculty research project	67%	33%	9	53%	47%	15	.41
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	59%	41%	17	47%	53%	19	.47
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	47%	53%	15	40%	60%	20	.16
Met informally with faculty to discuss a campus issue or problem	73%	27%	11	78%	22%	9	.07
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	27%	73%	22	35%	65%	37	.39
Met informally with faculty to get basic information and advice about my academic program	23%	77%	26	33%	67%	36	.77
Met informally with faculty to help resolve a personal problem	64%	36%	14	46%	54%	13	.90
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	46%	54%	26	54%	46%	24	.32
Was a guest in a professor's home for a meal or social function	29%	71%	7	71%	29%	7	2.57
Worked with a faculty member outside of class on a committee or project	0%	100%	1	50%	50%	6	***
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	33%	67%	3	0%	100%	1	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	67%	33%	3	75%	25%	4	***
Had a faculty member supervise a student social function (e.g., party) that you attended	25%	75%	8	50%	50%	8	1.07
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	100%	0%	2	50%	50%	6	***
Had a faculty member help organize or attend a field trip with a group you were affiliated with	67%	33%	6	0%	100%	2	***
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	40%	60%	5	25%	75%	4	***
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	25%	75%	4	57%	43%	7	***
Had a faculty member attend meetings for a group you were affiliated with	29%	71%	7	63%	38%	8	1.73
Had a faculty member actively participate in meetings for a group you were affiliated with	33%	67%	6	60%	40%	5	.78
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	0%	100%	1	25%	75%	4	***

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

One problem that plagued this set of analysis was small cell sizes. While this could be due to inadequate participation, it may be possible that certain types of SFIs are rare for undergraduates on any size campus such as teaching a class or attending athletic events with faculty. This problem might persist even if larger numbers of students were studied. Different types of analysis such as qualitative methods may need to be considered to help identify the true nature of these interactions and how institutional size impacts those interactions.

In terms of the actual analysis that could be conducted, very few statistical differences were found between small and large institutions but there seemed to be a pattern of some interactions, especially those within the ASO context, occurring more in the small college environment. The literature does support the idea that small college environments may offer more opportunities than large colleges for students and faculty to come together in informal activities (Alderman, 2008; Dilley, 1967; Tinto, 1975). It does appear that the findings from this study would support that conclusion.

One final observation is that many interactions occurring in the ASO context resulted in high composite scores for both small and large institutions. It may be that when interactions occur within ASOs, they occur in higher quantity and quality regardless of the size of the institution. More research is needed to determine the impact of interactions within ASOs and what characteristics may be present to yield higher quantity and/or quality.

Research Question 7

The seventh, and final, research question asked "does the quantity and quality of student-faculty interactions in academic student organizations differ by student role (i.e., member versus leader) and how do they compare to those that occur in other settings?" The first set of analysis compared the overall occurrence of SFIs as well as where the interactions occurred since participants started college. Two significant differences were observed. Table 21 demonstrates that while members and leaders had a similar overall frequency of SFIs, leaders were more likely to experience SFIs in the context of their ASO than members. Leaders also were more likely than members to experience SFIs in both the ASO context and within their other college activities.

TABLE 21. Frequency of SFIs by Organizational Role

Type of Student-Faculty Interaction	Member	n	Leader	n	χ^2
Experienced any SFI	100%	61	98%	43	1.43
Experienced any SFI in the ASO context	71%	61	95%	43	10.03**
Experienced any SFI in the Other College Activities context	97%	61	95%	43	.13
Experienced SFIs in both the ASO context and the Other College Activities context	67%	61	93%	43	9.75**

df=1, * =p<0.05; ** =p<0.01

The second set of analysis explored differences for each interaction between members and leaders in the ASO context and within other college activities. Two interactions could not be compared due to small cell sizes – attending athletic events and teaching a class. For the rest of the interactions, three significant differences were

observed and can be viewed in Table 22. The three interactions were having a faculty member speak at a presentation or workshop sponsored by a group, asking a faculty member for comments or criticism about coursework, and discussing campus issues with a faculty member. In all three cases, leaders were more likely to experience the interactions within their ASOs while members were more likely to experience the interactions through other college activities. In addition to the significant differences, the same pattern continued with other interactions. For the ASO environment, leaders experienced twenty interactions in greater frequency than members. For other college activities, members experienced sixteen interactions in greater frequency than leaders.

An attempt was made to compare the composite scores for members and leaders in both the ASO context and within other college activities. Several interactions in each context could not be compared due to small cell sizes. However, for those that could be compared, a few significant differences were observed. Tables 23 and 24, which immediately follow Table 22, contain the responses. For the ASO context, leaders were more likely than members to have a high composite score for the interactions of obtaining advice for their academic program and having drinks or meals with a faculty member. Similarly, in other college activities, leaders were more likely than members to have a high composite score for the interactions of seeking guidance for a course, discussing ideas for class projects, and having drinks or meals with a faculty member. Overall, leaders had more interactions that rated in the high composite category than did members in both the ASO environment and through other college activities.

TABLE 22. Occurrence of SFIs for ASOs and Other College Activities by Organizational Role

Student-Faculty Interaction	ASOs			Other College Activities			
	Member	Leader	n	Member	Leader	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	25%	75%	12	58%	42%	90	4.58*
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	41%	59%	17	60%	40%	89	1.96
Assisted a faculty member in teaching a class	25%	75%	4	46%	54%	13	***
Discussed ideas for a term paper or other class project with a faculty member	40%	60%	10	55%	45%	75	.76
Had a faculty member advise or supervise you on a faculty research project	54%	46%	13	53%	47%	34	.00
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	44%	56%	9	47%	54%	43	.01
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	34%	66%	47	45%	55%	40	1.09
Met informally with faculty to discuss a campus issue or problem	14%	86%	22	55%	45%	31	9.30**
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	45%	55%	38	57%	43%	68	1.56
Met informally with faculty to get basic information and advice about my academic program	50%	50%	30	58%	43%	73	.49
Met informally with faculty to help resolve a personal problem	20%	80%	5	53%	47%	34	1.89
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	37%	63%	38	53%	48%	59	2.29
Was a guest in a professor's home for a meal or social function	29%	71%	14	44%	56%	16	.74
Worked with a faculty member outside of class on a committee or project	33%	67%	15	55%	46%	11	1.17
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	50%	50%	2	86%	14%	7	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	22%	78%	9	62%	39%	13	3.32
Had a faculty member supervise a student social function (e.g., party) that you attended	39%	61%	33	54%	46%	24	1.22
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	24%	76%	29	56%	44%	9	3.14
Had a faculty member help organize or attend a field trip with a group you were affiliated with	44%	56%	32	41%	59%	17	.03
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	42%	58%	38	50%	50%	14	.26
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	47%	54%	43	91%	9%	11	6.99**
Had a faculty member attend meetings for a group you were affiliated with	49%	51%	65	61%	39%	18	.80
Had a faculty member actively participate in meetings for a group you were affiliated with	49%	52%	68	67%	33%	15	1.62
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	26%	74%	19	50%	50%	8	1.42

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

TABLE 23. Combined Quantity and Quality of SFIs for ASOs by Organizational Role

Student-Faculty Interaction	Members Low Composite	High Composite	n	Leaders Low Composite	High Composite	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	67%	33%	3	11%	89%	9	***
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	29%	71%	7	10%	90%	10	.98
Assisted a faculty member in teaching a class	100%	0%	1	33%	67%	3	***
Discussed ideas for a term paper or other class project with a faculty member	50%	50%	4	20%	80%	5	***
Had a faculty member advise or supervise you on a faculty research project	67%	33%	6	17%	83%	6	3.09
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	25%	75%	4	0%	100%	4	***
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	55%	46%	11	21%	79%	29	4.35*
Met informally with faculty to discuss a campus issue or problem	100%	0%	2	50%	50%	16	***
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	47%	53%	15	26%	74%	19	1.52
Met informally with faculty to get basic information and advice about my academic program	46%	54%	13	7%	93%	14	5.34*
Met informally with faculty to help resolve a personal problem	100%	0%	1	25%	75%	4	***
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	56%	44%	9	35%	65%	23	1.16
Was a guest in a professor's home for a meal or social function	50%	50%	2	70%	30%	10	***
Worked with a faculty member outside of class on a committee or project	100%	0%	1	63%	38%	8	***
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	100%	0%	1	0%	100%	1	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	50%	50%	2	75%	25%	4	***
Had a faculty member supervise a student social function (e.g., party) that you attended	33%	67%	9	28%	72%	18	.09
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	33%	67%	3	53%	47%	19	***
Had a faculty member help organize or attend a field trip with a group you were affiliated with	33%	67%	3	58%	42%	12	***
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	40%	60%	10	35%	65%	20	.07
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	19%	81%	16	36%	64%	25	1.40
Had a faculty member attend meetings for a group you were affiliated with	25%	75%	24	17%	83%	29	.48
Had a faculty member actively participate in meetings for a group you were affiliated with	36%	64%	25	20%	80%	30	1.76
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	100%	0%	3	25%	75%	12	***

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

TABLE 24. Combined Quantity and Quality of SFIs for Other College Activities by Organizational Role

Student-Faculty Interaction	Members Low Composite	High Composite	n	Leaders Low Composite	High Composite	n	χ^2
Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)	51%	49%	45	33%	67%	36	2.58
Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)	51%	49%	47	27%	74%	34	4.94*
Assisted a faculty member in teaching a class	60%	40%	5	17%	83%	6	2.21
Discussed ideas for a term paper or other class project with a faculty member	55%	46%	33	28%	72%	32	4.67*
Had a faculty member advise or supervise you on a faculty research project	50%	50%	10	64%	36%	14	.49
Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)	69%	31%	16	40%	60%	20	2.95
Had coffee, sodas, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)	73%	27%	15	20%	80%	20	9.96**
Met informally with faculty to discuss a campus issue or problem	80%	20%	10	70%	30%	10	.27
Met informally with faculty to discuss matters related to my future career such as career plans and ambitions	39%	61%	33	22%	78%	27	2.02
Met informally with faculty to get basic information and advice about my academic program	39%	61%	33	20%	80%	30	2.81
Met informally with faculty to help resolve a personal problem	50%	50%	12	63%	38%	16	.44
Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests	52%	48%	23	48%	52%	27	.08
Was a guest in a professor's home for a meal or social function	60%	40%	5	44%	56%	9	.31
Worked with a faculty member outside of class on a committee or project	33%	67%	3	50%	50%	4	***
Had a faculty member accompany you to an athletic competition or event (this could include other people as well)	33%	67%	3	0%	100%	1	***
Had a faculty member attend an arts or cultural event with you (this could include other people as well)	80%	20%	5	50%	50%	2	***
Had a faculty member supervise a student social function (e.g., party) that you attended	29%	71%	7	44%	56%	9	.42
Personally invited a faculty member to speak at an event sponsored by a group you were affiliated with	75%	25%	4	50%	50%	4	***
Had a faculty member help organize or attend a field trip with a group you were affiliated with	50%	50%	2	50%	50%	6	***
Had a faculty member assist in organizing a presentation or workshop sponsored by a group you were affiliated with	50%	50%	4	20%	80%	5	***
Had a faculty member speak at a presentation or workshop sponsored by a group you were affiliated with	57%	43%	7	25%	75%	4	***
Had a faculty member attend meetings for a group you were affiliated with	50%	50%	8	43%	57%	7	.08
Had a faculty member actively participate in meetings for a group you were affiliated with	33%	67%	6	60%	40%	5	.78
Worked with a faculty member outside of class on a committee or project sponsored by a group you were affiliated with	0%	100%	2	33%	67%	3	***

df=1, * =p<0.05; ** =p<0.01, ***=Could Not Compute

Based on the results of this study, it does appear that the role a student has within a student organization may impact the quantity and quality of interactions they have with faculty. This seems especially true for the ASO context, possibly because faculty members serve as advisors for these organizations. It may be that leaders, through their increased roles in their ASOs, have greater access to faculty than do members. Student leaders, by virtue of their positions and responsibilities, would have to interact with the faculty advisors to conduct organizational business. These business-related interactions may then develop into opportunities for forming deeper relationships with the faculty advisors or increase the prospects for interactions with other faculty. By contrast, members of ASOs may just attend meetings and events and never have a reason to interact with the faculty advisor or other faculty associated with the organization.

In addition to having greater access to faculty through their ASOs, student leaders may be participating in more forms of campus governance or may be invited to more functions and activities than members. These additional activities may give student leaders more access to faculty members than what is immediately available in their ASOs.

Limitations

There are a number of limitations to this study that should be noted. First, even though the study was conducted under the post-positivist paradigm, it was designed to be descriptive in nature rather than provide generalizable results. The results help identify what additional research should be conducted to further explore student-faculty interactions within the specific context of academic student organizations. It does not

represent the experience of all students participating in these organizations and should not be interpreted as such.

Second, although the academic student organizations were selected based on similar missions and purposes, it is possible that the activities of the organizations differed by institution. These unknown differences may have impacted the findings that were not addressed by this study.

Third, because of the limited availability of similar student organizations on each campus, some pre-selected organizations were honorary in nature, meaning membership is only open to students who perform well academically. These students may be predisposed to pursuing interactions with faculty in order to further develop their careers. It is possible that their participation in the study could have impacted the results.

Fourth, the instrument developed for the study may not capture the wide variety of SFIs that occur on a college campus. It is a research tool that may need further exploration in order to determine its usefulness in measuring interactions between students and faculty.

Fifth, this study defined "quality" in terms of the time that faculty and students spent together during their interactions. There could be other measures that could contribute to the quality of interactions between students and faculty such as level of satisfaction and the importance placed on the interactions by both parties. Additional studies would need to be conducted to determine whether length of time is a strong individual indicator of quality interactions.

Sixth, this study did not explore several areas suggested by other researchers as important factors in SFIs such as classroom structure (Cotten & Wilson, 2006) and teaching styles (Cotten & Wilson, 2006; Jaasma & Koper, 1999). These factors may have contributed to the quality and/or quantity of interactions in this study but were not examined.

Seventh, this study only examined the student perspective of SFIs. The faculty perspective is also needed in order to fully understand how interactions with students within the context of academic organizations may benefit and hinder the work, expectations, and values of faculty.

Eighth, females participated in this study in greater numbers than did males. Therefore, the male experience may not be fully captured by the results of this study.

Ninth, there are additional types of interactions that could be occurring between students and faculty that have yet to be fully examined. For instance, one study found that predominantly commuter campuses located in urban areas had interactions that were mainly conducted through technological means such as email and discussion boards (Kezar & Kinzie, 2006). It could be that some students are replacing face-to-face interactions with faculty through the use of technology, which could have resulted in decreased reporting of face-to-face interactions in this study.

And finally, some of the interactions examined by this study were not experienced by many participants. The result was several sets of analysis that could not be fully conducted due to small cell sizes. While it could be assumed that more participants were needed to make these comparisons, it is unclear whether or not this

was the cause of the small cell size issue. Other factors may be impacting this issue and should be explored further before concluding whether or not more participants would result in the kind of responses needed to conduct analysis. It may be that these interactions are not prevalent among college students regardless of institutional size, classification, and organizational role and should not be included in future studies on the topic.

Summary of Findings

The purpose of summarizing the findings of this descriptive study is to highlight the key points that require additional consideration. There are several findings that could impact future research, ranging from the demographic information collected to the analysis conducted for each research question.

For demographics, there were three important results to consider. First, almost all of the participants indicated that their academic student organization had a faculty member serving as their advisor. Second, at the beginning of the study, the issue of living-learning communities was a consideration for how students may be obtaining interactions with faculty. However, only a small proportion of participants in this study belonged to such communities and even fewer reported interacting with faculty as part of that community. Third, there were more juniors and seniors participating in the study than freshmen and sophomores. There is some indication in the literature that upperclassmen may be more likely to join academic student organizations than underclassmen. It may be that future research on academic student organizations needs to focus exclusively on upperclassmen.

In terms of answering the first research question, virtually all of the participants in this study experienced at least one interaction with faculty since they started college. This supports previous research that states almost all students will have an interaction with faculty during their college career (Lewallen, 1995; Rosenthal, et al., 2000). This study did provide some evidence, however, that asking where these interactions are occurring is necessary to truly understand student-faculty relationships. While most of the interactions reported in this study occurred through activities not associated with their academic student organizations, a majority of the participants experienced at least one interaction with faculty within the context of their organization. More importantly, three-quarters reported having interactions with faculty in both their academic student organization and their other college activities.

When research does not recognize that these interactions are occurring in specific contexts, it misses a key component of the college experience. This study reinforced the idea that contextual environments need to be considered and researched in order to understand student-faculty interactions. It also may be necessary to consider cultural influences such as socio-economic status to fully understand how students are operating within their contextual environments. For instance, students from a lower socio-economic status may not have the cultural capital to understand that interacting with faculty members can provide benefits (Walpole, 2003). It may be necessary to guide these students into interactions by providing them with a supportive environment.

Another observation worth noting was that most of the interactions occurring within the context of academic student organizations may be social in nature rather than

academic. For instance, faculty and students may interact within organizational meetings but it is unclear what topics they are discussing during those meetings. They could be focused on collecting canned goods for a service project rather than academic or career-related issues, which has been demonstrated to help students advance their intellectual development (Cotten & Wilson, 2006; Pascarella & Terenzini, 1980a; Terenzini & Pascarella, 1980). More research is needed before any firm conclusions can be made but it is an issue worth further exploration.

In regards to the quantity of interactions, the findings of this study support the existing literature that student-faculty interactions occur but are infrequent overall (Anaya & Cole, 2001; Cotten & Wilson, 2006; Fusani, 1994; Hagedorn, et al., 2000; Jaasma & Koper, 1999; Nadler & Nadler, 2001). The quantity of interactions that did occur for participants did not differ significantly between the context of academic student organizations and other college activities. However, there was a trend for participants to have a higher quantity of interactions within the ASO context than through other college activities. This trend may be influenced by the faculty advisors available in the organizations.

In terms of quality, most of the interactions reported by participants lasted longer than 10 minutes, which was the standard by which some researchers measured quality. The results of this study contradict previous literature (Jaasma & Koper, 1999; Nadler & Nadler, 2001) that concluded interactions between students and faculty typically last less than 10 minutes. It may be that the interactions explored in this study allowed for a

wider scope of activities experienced on a modern campus and that further research into these interactions may result in a new norm for the length of interactions.

While there were some discernible patterns for quantity, no differences or trends could be detected for quality. It may be that defining quality through length of time spent in the interaction is not the best way to determine quality. A better way to define quality may be what this study defined as a composite score of the frequency of the interaction multiplied by the length of time spent in the interaction. When composite scores were computed for this study, several of the traditional interactions defined as powerful by existing literature (See Appendix A) emerged as powerful interactions for the participants (e.g., higher frequencies and longer lasting). It should be noted, though, that some interactions thought to be powerful by previous researchers (See Appendix A) were not classified as high composite interactions by this study.

For institutional size, there were a few significant differences and a pattern of responses that indicated participants from small institutions may have a higher quality and quantity of interactions with faculty than their peers from large institutions. This idea is supported in the existing literature (Alderman, 2008; Dilley, 1967; Tinto, 1975). However, participants from large institutions also were experiencing interactions with faculty in both the academic student organization context and within other college activities so it is important not to dismiss what is occurring in both types of institutions. Institutional size should be considered a factor worth exploring in future research until a better understanding can be developed of what may be different about the interactions provided within both types of institutions.

For the last research question, whether or not a student served as a member or a leader in their academic student organization did appear to impact the interactions they had with faculty. Leaders reported more interactions with faculty in their organizational context than did members. This may be a direct result of these organizations having faculty advisors. Leaders must interact with advisors on a regular basis in order to perform responsibilities for the organization. This also would provide them greater access to faculty than the members who may just attend a general meeting and a few events throughout the school year.

The final chapter of this dissertation will provide further discussion of these findings along with a detailed plan for researching the topic more thoroughly.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Because this study was descriptive in nature, the final chapter will provide a discussion of the important findings and identify additional questions and considerations that need to be explored further. The discussion also will address some of challenges discovered while implementing this study and how best to overcome them in future studies. The chapter will conclude with recommendations for practice and a detailed plan for future research on the topic of student-faculty interactions that occur in academic student organizations.

Discussion of Key Issues

The topic of student-faculty interactions has long been studied to determine what students learn from these encounters. Previous literature has found that interactions between students and faculty are minimal (Anaya & Cole, 2001; Cotten & Wilson, 2006; Fusani, 1994; Hagedorn, et al., 2000; Lewallen, 1995; Nadler & Nadler, 2001; Snow, 1973; Wilson, et al., 1974); typically associated with a student's major or career field (Alderman, 2008; Anaya & Cole, 2001; Fusani, 1994; Iverson, et al., 1984; Nadler & Nadler, 2001; Terenzini & Pascarella, 1980); usually occur before or after class or during a faculty member's office hours (Cotten & Wilson, 2006; Nadler & Nadler, 2001); and last less than 10 minutes (Jaasma & Koper, 1999; Nadler & Nadler, 2001). Research also identified characteristics of powerful interactions such as having a friendly

exchange, addressing personal issues or interests, and students feeling comfortable with a faculty member (Baxter Magolda, 1987; Endo & Harpel, 1982).

Institutional size has been identified as another characteristic that could impact interactions with small campuses offering more opportunities for informal interactions such as visiting a faculty member's home while large campuses may offer more opportunities for formal interactions like working on a research project (Alderman, 2008; Dilley, 1967; Kezar & Kinzie, 2006; Tinto, 1975). The literature concludes that almost all college students experience an interaction with faculty while in college even though they may be brief and infrequent overall (Rosenthal, et al., 2000; Terenzini & Wright, 1987).

This study validated a few of these conclusions with most participants saying they had at least one interaction with a faculty member since they started college and that these interactions could be considered infrequent in the context of a student's entire college career. In addition, small institutions appeared to provide more opportunities for student-faculty interactions than did large institutions.

However, this study also found contradictory evidence to previous conclusions made by researchers. Participants in this study reported having at least one interaction with faculty which did not fall into the general category of occurring before or after class or during office hours. These interactions were occurring in the context of an academic student organization, with faculty members interacting with students during organizational meetings and activities. In addition, many of the participants reported interactions lasting more than 10 minutes in length, which was the standard used by

some researchers to measure the quality of interactions (Nadler & Nadler, 2001; Terenzini, et al., 1984a; Volkwein, et al., 1986).

Research has repeatedly identified involvement in co-curricular activities, and serving as a leader in those activities, as a useful experience where students can learn new skills and network with peers and college officials (Astin, 1993, 1999; Foubert & Grainger, 2006; Graham & Gisi, 2000; Hernandez, et al., 1999; Huang & Chang, 2004; Kuh, et al., 2005; Kuh, et al., 1991; Moore, et al., 1998; Pascarella & Terenzini, 2005; Stanford, 1992; Tinto, 1975). While some researchers previously have explored the idea that student-faculty interactions may occur within students' involvement experiences, they concluded that no meaningful interactions were occurring in these settings (Kuh & Hu, 2001; Volkwein, et al., 1986). However, the basic premise of this research was flawed. Researchers who study involvement regularly defined it as a broad concept with no attention paid to the different activities and outcomes associated with the type of organization a student chooses to join (Kuh & Hu, 2001; Pascarella & Terenzini, 1991; Terenzini, et al., 1996; Volkwein, et al., 1986). Dismissing the contextual environment resulted in important discoveries being overlooked. This study illustrates that students and faculty are interacting through the context of student organizations, but the right questions must be asked in order to discover the true nature of those interactions.

For instance, past researchers neglected to ask students if they had a faculty advisor for their student organizations (See Appendix A). While faculty advisors may not be prevalent for all types of student organizations, it is likely that academic organizations will attract the attention of faculty because of the interests they share with

students who join the organizations. In this study, almost all of the participants, who came from four institutions and nineteen student organizations, indicated that they had a faculty advisor for their academic organization. Student organization advisors interact with at least some student members on a regular basis in order to conduct organizational business and activities, so having a faculty member serving in this role provides some automatic interactions for students who belong to these organizations. This finding alone indicates that the research on student-faculty interactions within involvement opportunities is incomplete and should be reexamined for deficiencies.

Campuses have evolved over the past 30 years as societal needs have changed, yet research on student-faculty interactions routinely asks students about the interactions that were identified for the earliest investigations on the topic (See Appendix A). It has only been in the last seven years that new interactions have been explored, and those were from the faculty perspective and not from the student perspective (Einarson & Clarkberg, 2004). In addition, existing studies do not address where these interactions are occurring, only that they do occur somewhere in the college environment (See Appendix A). This study gathered all of the interactions that have been identified in the last thirty years and asked participants to identify not only if the interactions occurred but also in what context they occurred. Three-fourths of the participants in this study experienced interactions in their academic student organizations as well as their other college activities. This finding emphasizes the necessity of modernizing the research on this topic in order to obtain the true picture of what is occurring between students and faculty such as isolating contextual environments and discovering what interactions may

now be occurring on college campuses that were not available when the research topic was introduced (e.g., technology).

Another interesting finding of this study concerned the introduction of a composite score for measuring interactions. While existing literature explored the concepts of quantity and quality as separate entities (Clark, et al., 2002; Cotten & Wilson, 2006; Endo & Harpel, 1982; Kuh & Hu, 2001; Kuh, et al., 2005; Pascarella, et al., 1983; Pascarella & Terenzini, 1975, 1979b, 2005; Strauss & Volkwein, 2004; Terenzini & Pascarella, 1980; Terenzini, et al., 1984a; Volkwein, et al., 1986), this study put the two together in a composite score to try and understand the interaction of both characteristics. Astin's Theory of Involvement (1984) provided a rationale for creating a composite score and using it to measure interactions between students and faculty. When the interactions occur, both students and faculty are exerting energy in the exchange. These interactions have both qualitative and quantitative features that can impact how much energy is involved. For example, a longer interaction will require more energy from the participants. And the more energy they exert, the more meaningful the interaction will become. The composite score used in this study followed this logic to try and determine how much energy or "power" was being exhibited during the interactions.

The composite score for this study identified many of the traditional interactions (See Appendix A) as powerful, or of high quantity and high quality. These interactions included activities such as having sodas or snacks with a faculty member or discussing academic and career issues with them. These results help provide face validity the study

and highlight some things that might be changing on modern college campuses. For instance, some of the interactions such as interacting with faculty to gain advice on personal issues have traditionally been considered powerful but did not rate as powerful for this study. While it might be easy to dismiss this finding because of the descriptive nature of the study, the face validity provided from other results point to the possibility that additional factors may need to be considered such as the changes that have occurred on college campuses over time.

For instance, seeking advice from faculty regarding personal issues was identified as a meaningful interaction in the past but did not emerge as one for this study. Thirty years ago, faculty may have been seen as a resource for personal issues because students lacked immediate contact with people they normally would have turned to for advice. With the emergence of social networking and portable communication devices, students spend a great deal of time in constant contact with friends and family, obtaining immediate and ongoing support for whatever issues emerge in students' personal lives. In addition, these students may prefer to connect to other people through their online communities because it is a more immediate way of sharing their thoughts and interacting with a wide variety of people. Faculty may no longer serve the same role for students as they once did, so previously identified "powerful" interactions such as seeking advice for personal problems may no longer be relevant for today's students. The use of a composite score to measure the overall "power" of each interaction should be explored further to determine whether or not it is an appropriate and accurate measure of student-faculty interactions.

In addition to using a composite score for the first time, this study identified one characteristic that has been overlooked in previous research on the topic of student-faculty interactions – organizational role. While interactions with faculty were occurring for a majority of students in their academic student organizations, student leaders were found to have even more interactions with faculty in this context than did students who were members of the organization. This is an important finding because it addresses the importance of not only being involved in these organizations but of taking on additional responsibilities as a leader. While members merely attend meetings and activities, leaders must interact with advisors on a regular basis in order to perform responsibilities for the organization. This would provide them greater access to faculty interactions than the members who may just attend general meetings and a few events throughout the school year.

By virtue of their leadership position in a campus organization, leaders also may have access to other faculty members through campus governance activities or academic functions that require student participation. For instance, if the faculty advisors attend a department meeting where they are asked to identify students who could provide feedback on a proposed curricula change, the advisors may naturally think of the students with whom they work most closely and forward their names. The student leaders then are contacted by other faculty members in the department in order to provide that feedback. The frequency of interactions could continue to increase because of the leadership position students hold, with the result that leaders have more powerful interactions with faculty than members.

Recommendations for Practice

Kuh (1995) explained, “Policies and practices should be designed to encourage students to take responsibility for their own affairs, interact frequently with members of different groups in various settings, and apply knowledge gained in the classroom to other areas (for example, employment, community affairs)” (p. 150). While these are useful goals to have, researchers have demonstrated that students are unsure of how to meet and interact with faculty and need direct guidance and activities that bring the two groups together (Anderson & Carta-Falsa, 2002; Cotten & Wilson, 2006). This study demonstrated institutions may already have resources, in the form of academic student organizations, that can be examined as possible avenues for bringing students and faculty together.

For instance, institutions regularly provide orientation sessions for new students, especially incoming freshmen. These orientation sessions could include a list of academic student organizations available for specific majors and areas of study. In addition, the campus administrators and faculty who participate in the orientation sessions can encourage new students to join an academic organization. Once students are directed to these organizations, academic colleges and departments can turn the majority of their non-classroom attention to these organizations and begin to establish regular interactions. These interactions could take the form of faculty serving as the organizational advisor, leading an annual career-related field trip, or speaking to the members of an organization about the skills they need to work in their chosen career.

While the main goal of this process would be to bring faculty and students together in a structured environment, student affairs professionals also could play an essential role in creating this environment. Faculty may not have the financial resources or event planning background to create some of the interaction opportunities. For instance, taking a group of students on a field trip requires money and time. Student affairs professionals could set aside a portion of their programming budgets to help fund these kinds of trips, and then work with the student leaders of the organization to plan and execute the details. Getting the student affairs professionals involved would create a seamless partnership where the students received guidance on leadership skills, and then benefit from the knowledge provided by the faculty member who is escorting them on the trip.

Of course, this idea may have some inherent challenges to overcome. Einarson and Clarkberg (2004) concluded that some students and faculty need direct coaching on how to interact with each other. For instance, students may not understand the life of a faculty member, so they may benefit from a step-by-step process on what to say to faculty members such as providing a proper greeting and asking questions about faculty research and teaching interests. On the other side, faculty may not understand the interests and needs of current students. Faculty may benefit from information regarding the technological devices used by students, the kinds of activities students participate in outside of class, and where students work. Faculty could even be provided tours of campus residence halls so they can understand a little more about students' lives. By

providing a little information prior to the actual interactions, administrators can help students and faculty feel more comfortable with each other.

Another challenge might be faculty interaction styles. Snow (1973) found that faculty exhibited two different styles when they interacted with students. One group of faculty members was receptive to interacting with students outside of class and learning more about their personal lives. The other group of faculty members did not wish to move beyond only serving as a resource for students and taking care of needed tasks. These different approaches may need to be recognized by distributing roles based on style. For instance, the more interaction-oriented faculty members may do well serving as an organizational advisor while the task-oriented faculty members may appreciate serving as speakers for organizational events.

While students will learn from the faculty with whom they interact, Lohr (2004) found that faculty benefit from these interactions as well. Faculty who interacted with students expressed feeling a sense of purpose, having more enthusiasm for the college environment, receiving feedback about what students want from their instructors, and increasing their understanding of young people. Unfortunately, these are intangible rewards that may not be viewed as necessary by faculty reward structures. If academic student organizations are to be used as a primary vehicle for bringing students and faculty together, the faculty reward structures must be reviewed to ensure at least some recognition that there are benefits to spending time with students.

Addressing the reward structures and encouraging faculty to engage with students outside of class can also benefit the academic mission of the institution. One

study found that when faculty build relationships with students, those relationships can lead to additional financial resources or professional connections after those students graduate and become employed in a related field (Lohr, 2004). In essence, encouraging and rewarding faculty for interacting with students can help a department or college expand its professional network, thereby providing additional opportunities for academic growth and development.

While there are challenges to creating a structured environment for all students and faculty to interact, it may be easiest to begin with what already is happening on the campus. For instance, as this study demonstrated, academic student organizations may already have a faculty advisor. The student affairs division may already track this information, so these individuals could be easily identified. In addition, student affairs professionals could provide oversight and coordination in bringing these advisors together and discovering what kinds of interactions are already occurring and what additional financial or planning resources are needed in order to create more interaction opportunities. The identified interactions could be assessed and improved over time to ensure that both students and faculty benefit in ways that are important to the institutional mission.

Recommendations for Further Research

While it does not provide conclusive evidence, this descriptive study does provide a benchmark for the important issues that need to be addressed in future research on the topic of student-faculty interactions in academic student organizations. It is clear from this study that student-faculty interactions are occurring in the context of academic

student organizations and that contextual environments matter in the questions that are asked. Based on the findings of this study, a thorough research plan can be devised for further investigations on the topic of student-faculty interactions within involvement experiences. The research plan should address barriers encountered in this study, identify all interactions with faculty that are occurring for students in all contexts, provide results that can be generalized to modern campuses, and consider additional variables that may impact student-faculty interactions in involvement activities.

The first part of the research plan should account for and remedy all barriers encountered in this study. One of the first problems discovered with examining student-faculty interactions in academic student organizations was the administrative oversight provided by the institutions. On many college campuses, student organizations must follow a formal recognition process that assists the institution in identifying what groups are active and what leaders can be contacted for that group if someone needs more information. However, the recognition process varies among institutions. For this study, one of the originally selected institutions did not have a formal process. Identifying the appropriate organizational contacts on this campus became an insurmountable barrier because there was no deadline for organizations to update their information. Some of the contacts were more than three years old and the campus administrators providing oversight to the recognition process could not identify any current leaders in the organization or whether or not the organization had any active membership. Future research should use this basic administrative function as a way to identify where subjects should be recruited. If the institutions do not collect and

maintain this information on a regular basis, assessing the student experience on those campuses is challenging at best.

A related problem was finding another organizational contact when the student representative did not respond to initial requests for participation in the study. In these cases, the next line of contact was to the staff advisor. Campuses with good tracking systems for student organizations typically provide contact information for the organizational advisor. For all but one organization where the advisor had to be contacted for assistance in reaching the student representative, communicating with the advisor proved to be very beneficial in securing student participation. Future research should obtain both student and staff contact information prior to recruiting subjects in order to maximize participation. Researchers should not be hesitant about contacting the advisors, some of whom may be faculty members who understand and promote research and may encourage their students to participate.

While the administrative oversight of a student organizations database was a predictable problem, one issue was completely unexpected for this study. It initially was assumed that student organizations identified for this study would only have membership rosters containing current students. Both undergraduate and graduate classifications were expected and the study instrument was specifically designed to identify these classifications so only undergraduate responses would be used for the study. Therefore, it was quite surprising when alumni and faculty responded to the instrument. Further exploration revealed that some of the organizations in the study were of a professional nature, with full-fledged chapters being located on the campuses on behalf of a national

organization rather than student-only chapters. Future research needs to account for this possibility by asking each organization if they have faculty and alumni within their membership rosters and recruiting appropriate subjects for the research questions being asked.

Classification also was a barrier for this study because only a handful of freshmen and sophomores responded to the instrument. While it is possible that recruiting more subjects would remedy the small cell sizes caused by this low underclassman participation, there may be another explanation for the low response rate. According to existing literature and developmental theory, as students progress in their college career, they become more interested in vocationally driven activities (Arminio & Loflin, 2003; Chickering & Reisser, 1993; Terenzini & Wright, 1987; Wessel, et al., 2003). The few studies that examined what kinds of students chose to become involved in academic student organizations discovered that they were dominated by upperclassmen (Arminio & Loflin, 2003; Holzweiss, et al., 2008). More research is needed to fully explore this possibility but it does appear that upperclassmen will be the likely subjects in future studies because underclassmen are in short supply in this context. Future researchers should consider that recruiting underclassmen may be too much of a challenge and that focusing on upperclassmen, at least at this stage of knowledge, would present a better use of resources.

A final barrier was the instrument itself. The instrument was structured in a way that participants may have found tedious. The participants who had to be removed from the database because of incomplete responses all dropped out of the survey by the third

time through the interactions list and skipped questions in the other sections prior to dropping out. It may be more effective to redesign the survey to address each interaction one at a time starting with whether or not the participants had the interaction. If they say no, they can go on to the next interaction. If they say yes, they can be directed to the quantity and quality questions. While this also could be interpreted as tedious by some participants, they may move through some of the interactions at a faster pace and only spend time answering the questions that they resonate with. This could engage them long enough to complete the survey and provide the necessary data for examination.

The second part of the research plan should identify all interactions that students are having with faculty, in both the academic student organization context and within other college activities. The best way to identify the interactions would be to conduct in-depth, individual interviews with several subjects at different institutions. The instrument developed for this study would provide a good resource for developing the interview protocol. Subjects could respond to the instrument prior to the interview, and then the researcher could conduct the interview by further exploring each interaction and context the subjects identified. Follow-up questions could be asked regarding the context in which specific interactions occurred, how long the interactions lasted, who else was present during the interactions, who the faculty member was, whether or not they have had additional contact with the faculty member since the initial interaction, and what kind of impact the subjects believe the interaction had on their own learning.

Conducting in-depth interviews could help identify how many faculty members students are interacting with while they are in college and how those faculty members

might or might not be related to the academic student organization. For instance, are all of the interactions occurring with the faculty advisor or do they originate with other faculty members? Being able to question students further regarding their experiences would help enlighten the conversation regarding student-faculty interactions.

The interviews also could examine the debate over quantity and quality, and enlist students' assistance with clearly defining what constitutes a powerful interaction with faculty. One way to accomplish this goal would be to explain this study's use of a composite score and ask for a reaction and suggestions for improvement. For instance, what is an acceptable frequency of interactions for students? Does the frequency matter to students? How do they define a quality interaction? Does the length of the interaction factor into how powerful it is to students? Even though the range of quality and quantity measures used in this study reflected prior literature (Nadler & Nadler, 2001; Pascarella & Terenzini, 1979a; Terenzini & Pascarella, 1980; Terenzini, et al., 1984a, 1984b; Volkwein, et al., 1986), it may be that these ranges do not adequately capture the student experience.

Another possibility is that a new definition of "quality" may need to be created. The current reliance on time to define the quality of interactions misses other important characteristics such as how engaged the faculty member is with the student, the significance of the interaction to the student, and whether or not the interaction helped the student resolve an issue. Refining these measures, or creating new ones that are more relevant to the current student experience, may be necessary to truly understand what is occurring on today's college campus.

It also may be useful to try and classify student responses within the framework of Bloom's Taxonomy. It may be possible that the powerful interactions that students describe could fit into the higher orders of both the cognitive and affective taxonomies. Understanding what students perceive as important aspects of interactions with faculty could help researchers create a meaningful measure that could be used widely.

Another issue that should be considered in terms of developing an interview protocol is whether or not students are involved in living-learning communities and how those communities provide interactions with faculty, if at all. While only a small proportion of participants in this study belonged to such communities, a few did report interacting with faculty as part of those communities. Living-learning communities should not be overlooked as a possible way students and faculty interact. It is important to ask students specific questions about where they might be experiencing interactions with faculty because they may not recall this information without being prompted for it.

Similarly, the interview protocol should specifically ask about the use of technology to interact with faculty. Modern students use technology on a daily basis and may be more likely to contact faculty through technological channels than approach them in person. These interactions should be accounted for in the interviews so the role of technology can be better understood in the context of student-faculty interactions.

Once the interviews have been conducted and the full nature of interactions are better understood, the research plan can move into the third phase of providing results that can be generalized to modern campuses. The interview findings could inform the development of a new instrument or a revision of the current one in order to provide an

exhaustive list of interactions that students can experience with faculty. Each interaction could then be asked in terms of where it occurred such as in a classroom, during office hours, in an academic student organization, etc. Depending on responses, follow-up questions could explore how long the interaction lasted, how often students had experienced the interaction, whether or not they interacted with that faculty member more than once, and how they would rate the power of the interaction (as defined through the interviews).

In addition to the information regarding student-faculty interactions, institutional size should be collected as a data field on the instrument. In this study there were a few significant differences and a pattern of responses that indicated participants from small institutions may have a higher quality and quantity of interactions with faculty than their peers from large institutions. This idea is supported in the existing literature (Alderman, 2008; Dilley, 1967; Kezar & Kinzie, 2006; Tinto, 1975). However, participants in this study who attended large institutions also were experiencing interactions with faculty in both the academic student organization context and within other college activities, so it is important not to dismiss what is occurring in both types of institutions. Institutional size should be considered a factor worth exploring in future research until a better understanding can be developed of what may be different about the interactions provided within both sizes of institutions.

When an instrument has been created and tested, it should be implemented on a variety of campuses, in different regions of the country. The purpose of such a national implementation would be to gather definitive benchmark data that would explain what is

happening on different campuses and whether or not there are significant variations between variables. Once the benchmark data is obtained, the next phase would be to administer the instrument for academic student organizations on several different college campuses in order to understand what is happening in those contexts and how students and faculty build relationships in those environments.

To better inform the data collection, the implementation of the instrument should collect descriptive data regarding student's role in the organization, the length of his or her membership in the organization, and how many hours per week the student devotes to the organization. This study demonstrated that organizational role had a relationship to the quantity and quality of student-faculty interactions. The length of membership and time spent with organizational activities also may be factors for these interactions and it is important to continue exploring them until the impact is understood.

Another piece of information that should be collected on the instrument is students' plans for future academic preparation or career advancement. It may be that academic student organizations attract students who are already inclined to pursue advanced degrees or seek top leadership positions in their companies. Evaluating how these future plans may motivate a student to join academic student organizations could help identify which students are likely to become involved and how to encourage other students to consider joining.

The final part of the research plan should move beyond this study's focus on academic student organizations. For instance, other types of organizations also could provide students with opportunities to interact with faculty. One example is service

based organizations. Faculty members may be involved in community groups that seek the assistance of these organizations to provide volunteers for events. Or faculty members could turn to these organizations to help with service learning projects associated with an academic course. How do these faculty roles impact the students? What do they learn from working side by side with a faculty member on a volunteer project?

In addition to service organizations, other types of organizations may have some inherent faculty interactions. Student governance groups often tackle important campus issues that need faculty input or guidance. Do the students who consult faculty members learn more about the faculty role on campus? How do their interactions with faculty in this context promote understanding between the two parties? Programming councils design activities that complement some academic courses such as featuring speakers that address issues important to some classrooms. Faculty may be contacted for speaker ideas or to market the program to their students. What do students take away from these speaker experiences that they may not obtain in other environments? Greek societies often ask faculty members to serve as academic advisors to their chapter members. How does this advising role impact the student members? Other organizations and activities that could be explored further include recreational and sports groups, study abroad programs, and religious organizations. It is important to continue identifying and exploring the different contextual environments where students and faculty might come together for a common purpose.

Obtaining the faculty perspective for interactions in different contextual environments is another important issue to examine. It may be useful to start with the faculty who are serving as advisors for academic student organizations. Based on this study, faculty advisors may be the norm for academic student organizations. Nineteen organizations on four campuses were part of this study and almost all of them had faculty advisors. This one factor could have a real impact on students because participating in this type of campus organization automatically puts them in contact with faculty members. In this informal context, students could feel more comfortable in approaching these faculty advisors and forming long-term relationships with them outside of the classroom.

More needs to be understood about who these faculty advisors are and what kinds of relationships they are forming with students. Are they tenured faculty? Do they belong to the same academic department or are the elsewhere in the college? Do they have some of the students in their classes as well as the organization? How does that student-faculty relationship evolve over time? What topics of discussion are frequently encountered by these faculty advisors? Are they professionally rewarded in some manner for their service to these organizations? Do they receive any personal rewards for serving in this organizational role? What is their motivation for taking on the role of organizational advisor? Do they have specific personality characteristics that encourage them to seek out opportunities to work with students in this context? Does gender or ethnicity matter when faculty members serve as organizational advisors? Do they develop relationships with specific types of students such as male students when the

advisor is male? What is the culture of their academic discipline and how does that culture impact their role as an advisor?

If research reveals that other faculty members outside of advisors are interacting with student members of the organizations, who are these faculty members and what role do they play with the organization? How many times do they interact with students in the organization and what kind of interactions do they participate in? Asking all of these questions is essential to understanding the faculty perspective of the interactions that are occurring in the academic student organization environment.

In addition to understanding the faculty perspective in greater detail, more information is needed on the impact of classification. It would be helpful to understand how students become engaged in career development issues and when they decide to join academic student organizations. This study clearly demonstrated that students do have opportunities to interact with faculty in the context of these organizations but the opportunities may only be reaching upperclassmen since they seem more likely to join the organizations. It is possible that if freshmen can be connected to these kinds of organizations during their first year in college, more interactions with faculty could be possible throughout their college career.

This possibility should be explored further by conducting a longitudinal study with incoming freshmen. They could be interviewed two or three times per year during their college career in order to discover how they view career development over time and what might motivate them to become involved in organizations that can help prepare them for future jobs. Identifying when students begin seriously focusing on career

development issues could help colleges connect students to appropriate resources at the right time or help them become interested in career development activities at an earlier stage.

While all freshmen may need to be encouraged to explore career development opportunities such as joining academic student organizations, it could be especially important for freshmen who come from lower socio-economic backgrounds. It has been demonstrated in previous research that students from low socio-economic backgrounds are less involved in student organizations than students from higher socio-economic backgrounds (Walpole, 2003). These students may need to be examined further to determine if they differ from the general freshman population in terms of getting involved in academic student organizations or other activities that put them into contact with faculty. Interviewing them several times a year during their college career could help identify any special needs they have and how institutions can best address these needs.

Community colleges may present another opportunity for research. Academic student organizations exist on community college campuses but may experience low membership due to the varying needs of the non-traditional population that attends these institutions. Further exploration regarding the student-faculty interactions that may be occurring in the existing organizations could provide an opportunity to identify any beneficial outcomes students may experience. If benefits do exist, community college administrators may be able to use that information to promote more involvement in

academic student organizations and increase the opportunities for students and faculty to come together.

Finally, the student-faculty interactions in the different contextual environments should be examined for long-term benefits. For instance, do students who join academic student organizations and have interactions with faculty benefit in terms of increased job offers or better preparation for employment? Are they more likely to contribute financial support to their alma mater because of their experiences? What role do these interactions play in academic performance, satisfaction with the college experience, retention, and career aspirations? Understanding the long-term impact of the contextual environments and the interactions found within them is important for identifying what collegiate activities provide the greatest potential for development given existing resources.

Conclusions

This study highlighted the importance of considering the contextual environment when researching student-faculty interactions. When the context of academic student organizations was brought into focus, students reported interactions with faculty that were both frequent and lengthy. Future research must focus on isolating these contextual environments and asking specific questions about the experiences of students in these environments.

The importance of isolating contextual environments and trying to understand them in detail can be best summarized by Kuh (1995):

> Colleges cannot force students to participate in organized campus activities or perform leadership roles. However, they can and should be accountable for

> creating the conditions that promote such behavior. Policies and practices should be designed to encourage students to take responsibility for their own affairs, interact frequently with members of different groups in various settings, and apply knowledge gained in the classroom to other areas (p. 150).

This study is the first step in discovering how academic student organizations and other involvement activities can be utilized for increasing student learning. For instance, new students receive a variety of resources to help them prepare for college. Those resources can incorporate recommendations for what students need to do to achieve success in college including why they should initiate contact with faculty members, what that process might look like, and what can be gained from it. Explaining to them that they could find faculty members in academic student organizations might lead more freshmen to join these groups.

Implementing all of the recommendations for further research could help colleges and universities identify the opportunities that are already bringing students and faculty together. Doing so would benefit institutions through better management of current resources and providing further evidence that these resources are benefiting student learning.

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APPENDIX A

SOURCE OF ITEMS USED IN SURVEY INSTRUMENT

1. Met informally with faculty to help resolve a personal problem

(Anaya & Cole, 2001; Hagedorn, et al., 2000; Pascarella, et al., 1983; Pascarella & Terenzini, 1979a; Pascarella & Terenzini, 1980b; Pascarella & Terenzini, 1981; Terenzini & Pascarella, 1980; Terenzini, Springer, Pascarella, & Nora, 1995; Terenzini, et al., 1984a; Terenzini & Wright, 1987; Thompson, 2001; Volkwein, et al., 1986; Wilson, et al., 1974)

2. Met informally with faculty to get basic information and advice about my academic program

(Nadler & Nadler, 2001; Pascarella, et al., 1983; Pascarella & Terenzini, 1979a; Pascarella & Terenzini, 1980b; Pascarella & Terenzini, 1981; Terenzini & Pascarella, 1980; Terenzini, et al., 1984a; Terenzini & Wright, 1987; Volkwein, et al., 1986; Wilson, et al., 1974)

3. Met informally with faculty to discuss a campus issue or problem

(Pascarella, et al., 1983; Pascarella & Terenzini, 1979a; Pascarella & Terenzini, 1980b; Pascarella & Terenzini, 1981; Terenzini & Pascarella, 1980; Terenzini, et al., 1984a; Terenzini & Wright, 1987; Volkwein, et al., 1986; Wilson, et al., 1974)

4. Met informally with faculty to discuss matters related to my future career such as career plans and ambitions

(Anaya & Cole, 2001; Hagedorn, et al., 2000; Kuh, et al., 2005; Pascarella, et al., 1983; Pascarella & Terenzini, 1979a, 1981; Terenzini & Pascarella, 1980; Terenzini, et al., 1995; Terenzini, et al., 1984a; Terenzini & Wright, 1987; Thompson, 2001; Volkwein, et al., 1986; Wilson, et al., 1974)

5. Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)

(Anaya & Cole, 2001; Berger & Braxton, 1998; Kuh, et al., 2005; Nadler & Nadler, 2001; Pascarella, et al., 1983; Pascarella & Terenzini, 1979a, 1981; Plecha, 2002; Terenzini & Pascarella, 1980; Terenzini, et al., 1995; Terenzini, et al., 1984a; Terenzini & Wright, 1987; Thompson, 2001; Volkwein, et al., 1986; Wilson, et al., 1974)

6. Had a faculty member advise or supervise you on a faculty research project

(Anaya & Cole, 2001; Astin, 1993; Einarson & Clarkberg, 2004; Kuh, et al., 2005; Lewallen, 1995; Terenzini, et al., 1995; Walpole, 2003)

7. Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)
(Anaya & Cole, 2001; Astin, 1993; Einarson & Clarkberg, 2004; Kuh, et al., 2005; Lewallen, 1995; Terenzini, et al., 1995; Walpole, 2003)

8. Was a guest in a professor's home for a meal or social function
(Astin, 1993; Einarson & Clarkberg, 2004; Lewallen, 1995; Plecha, 2002; Walpole, 2003)

9. Worked with a faculty member outside of class on a committee or project
(Kuh, et al., 2005)

10. Had coffee, cokes, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)
(Anaya & Cole, 2001; Einarson & Clarkberg, 2004; Terenzini, et al., 1995)

11. Talked informally (and outside of class) with an instructor about current events, campus activities, or other common interests
(Hagedorn, et al., 2000; Lewallen, 1995; Pascarella, et al., 1983; Pascarella & Terenzini, 1979a, 1981; Terenzini & Pascarella, 1980; Terenzini, et al., 1984a; Terenzini & Wright, 1987; Thompson, 2001; Volkwein, et al., 1986; Wilson, et al., 1974)

12. Assisted a faculty member in teaching a class
(Astin, 1993; Lewallen, 1995; Walpole, 2003)

13. Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)
(Anaya & Cole, 2001; Astin, 1993; Terenzini, et al., 1995; Thompson, 2001)

14. Discussed ideas for a term paper or other class project with a faculty member
(Anaya & Cole, 2001; Terenzini, et al., 1995; Thompson, 2001)

15. Had a faculty member accompany you to an athletic competition or event (this could include other people as well)
(Einarson & Clarkberg, 2004)

16. Had a faculty member attend an arts or cultural event with you (this could include other people as well)
(Einarson & Clarkberg, 2004)

17. Had a faculty member supervise a student social function (e.g., party) that you attended

(Einarson & Clarkberg, 2004)

18. Had a faculty advisor for a student organization or committee that you belong(ed) to

(Einarson & Clarkberg, 2004)

19. Personally invited a faculty member to speak at an event sponsored by your organization

(Einarson & Clarkberg, 2004)

20. Had a faculty member help organize or attend a field trip with your student organization

(Einarson & Clarkberg, 2004)

21. Had a faculty member assist in organizing a presentation or workshop sponsored by your organization

(Einarson & Clarkberg, 2004)

22. Had a faculty member speak at a presentation or workshop sponsored by your organization

(Einarson & Clarkberg, 2004)

23. Had a faculty member attend meetings for your student organization

(Einarson & Clarkberg, 2004)

24. Had a faculty member actively participate in meetings for your student organization

(Einarson & Clarkberg, 2004)

25. Worked with a faculty member outside of class on a committee or project sponsored by your organization

(Kuh, et al., 2005)

APPENDIX B

SURVEY INSTRUMENT

ACADEMIC STUDENT ORGANIZATION SURVEY

THIS INFORMATION IS REQUIRED BY THE HUMAN SUBJECTS BOARD. PLEASE READ THEN CONTINUE ON TO THE QUESTIONS.

This survey is designed to collect information on what type of interactions students have with faculty members. Your responses will provide information about the quantity and quality of these interactions as well as under what circumstances they might occur.

You were selected for participation in this study because of your enrollment at one of four pre-selected colleges and universities as well as your membership in an academic student organization on the selected campus.

It is important that you are aware of the following factors about this survey:

1. **You were specifically selected to participate in this study.** Four colleges and universities were pre-selected to participate in the study because of specific institutional characteristics. After the institutions were selected, several academic student organizations were identified as common to each of the institutions. You were identified as a member of one of these organizations and therefore you are receiving this survey to request your participation in the study. Your participation is very important to the success of the project because only a limited number of students in the state of Texas were selected to contribute their experiences.

2. **Participation is confidential.** While email addresses are known at the beginning, they will be separated from the rest of the data prior to analysis so no one will how you responded to specific questions. In addition, results will only be reported in groups so your individual information will never be shared.

3. **Participation is low-risk and completely voluntarily.** You are under no obligation to participate and will not receive any benefits to do so. You may skip any question that makes you uncomfortable and you may stop responding at any time.

4. All individually identifying information will be removed from the database prior to analysis and destroyed. No personal information will be stored with the data files.

5. By completing the survey, you certify that you are *18 years of age or older* and that you are consenting to participate in this study. Please print off this information for future reference as your consent form.

6. The survey will take approximately 10 minutes to complete depending on your responses.

7. Results of the survey will be available to you at the conclusion of the project. If you are interested in receiving a copy of the final dissertation, the last question on the survey allows you to put in an email address where the final dissertation can be sent to you.

8. Responses to the survey need to be completed by November 13, 2009**.**

9. This project will contribute towards the fulfillment of a doctoral degree for the researcher and may be published in the future for use by other researchers.

If you have questions or concerns about this project, please contact Peggy Holzweiss at (979) 575-2585 or peggy-h@tamu.edu.

Sincerely,

Peggy Holzweiss
Doctoral Student
Department of Educational Administration and Human Resource Development
Texas A&M University

This research study has been reviewed by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Melissa McIlhaney, IRB Program Coordinator, Office of Research Compliance, (979) 458-4067, mcilhaney@tamu.edu.

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What college or university do you attend?
McMurry University
Texas A&M University
Texas State University – San Marcos
University of St. Thomas

What is your classification?
Freshman
Sophomore
Junior
Senior
Other: <text box>

What is your gender?
Female
Male

Are you currently involved with a student organization that is focused on academic topics and/or professions (e.g., chemistry, science, psychology, health, education, English, etc.)? These organizations are typically affiliated with an academic college or department.
Yes
No <goto learning community question>

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What academic student organization are you involved with on your campus? <text box>

Are you a member or a leader (e.g., in a specific, formal position) in the organization?
Member
Leader

Approximately how many active members are in your organization this semester?
<text box>

Do you have a faculty advisor for your academic student organization?
Yes
No

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Do you currently participate in a formal living/learning community (e.g., you enrolled or were selected to participate in a residential program where you live with other students in your major, take classes with them, and participate in academic activities with them)?
Yes
No

> **(If yes) Do you interact with faculty as part of that living/learning community?**
> Yes
> No

<page break>

The rest of the survey will ask you to consider a list of interactions students may have with faculty members when they come to college. The list will appear three different times then the survey will conclude.

For the first section, you will be asked if the interaction occurred since you started college and, if so, if the interaction occurred because of your academic student organization or other college experience.

The second section will ask you to estimate how many times the interaction has occurred since you started college.

The third section will ask you to estimate the average length of the interactions.

Please continue to the rest of the survey.

<page break>

Section 1: Why Did This Interaction Occur? (Select All That Apply)

Scale: 2=Occurred because of my academic student organization, 1=Occurred within my other experiences as a college student, 0=I have never experienced this interaction with a faculty member

- Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)
- Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)
- Assisted a faculty member in teaching a class
- Discussed ideas for a term paper or other class project with a faculty member
- Had a faculty member advise or supervise you on a faculty research project
- Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)
- Had coffee, cokes, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)
- Met informally with faculty to discuss a campus issue or problem
- Met informally with faculty to discuss matters related to my future career such as career plans and ambitions
- Met informally with faculty to get basic information and advice about my academic program
- Met informally with faculty to help resolve a personal problem
- Talked informally (and outside of class) with a faculty member about current events, campus activities, or other common interests
- Was a guest in a professor's home for a meal or social function
- Worked with a faculty member outside of class on a committee or project
- Had a faculty member accompany you to an athletic competition or event (this could include other people as well)

- Had a faculty member attend an arts or cultural event with you (this could include other people as well)
- Had a faculty member supervise a student social function (e.g., party) that you attended
- Personally invited a faculty member to speak at an event sponsored by a group with which you were affiliated
- Had a faculty member help organize or attend a field trip with a group with which you were affiliated
- Had a faculty member assist in organizing a presentation or workshop sponsored by a group with which you were affiliated
- Had a faculty member speak at a presentation or workshop sponsored by a group with which you were affiliated
- Had a faculty member attend meetings for a group with which you were affiliated
- Had a faculty member actively participate in meetings for a group with which you were affiliated
- Worked with a faculty member outside of class on a committee or project sponsored by a group with which you were affiliated

If there are other interactions you have had with faculty members that are not covered by this list, please explain them here: <text box>

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Section 2: How Many Times Has This Interaction Occurred Between You and a Faculty Member Since You Started College?

Scale: 5=5 or more times, 4=4 times, 3=3 times, 2=2 times, 1=1 time, 0=I have never experienced this interaction with faculty

- Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)
- Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)
- Assisted a faculty member in teaching a class
- Discussed ideas for a term paper or other class project with a faculty member
- Had a faculty member advise or supervise you on a faculty research project
- Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)
- Had coffee, cokes, snacks, or meals with a professor (either in on-campus dining locations or off-campus at restaurants)
- Met informally with faculty to discuss a campus issue or problem

- Met informally with faculty to discuss matters related to my future career such as career plans and ambitions
- Met informally with faculty to get basic information and advice about my academic program
- Met informally with faculty to help resolve a personal problem
- Talked informally (and outside of class) with a faculty member about current events, campus activities, or other common interests
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- Worked with a faculty member outside of class on a committee or project sponsored by a group with which you were affiliated

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Section 3: How Long was the Average Interaction of this Type That You Have Had Since You Started College?

Scale: 4=Over 60 minutes, 3=Between 31 and 60 minutes, 2=Between 16 and 30 minutes, 1=Less than 10 minutes, 0=I have never experienced this interaction with faculty

- Asked a faculty member for comments or criticisms about your work (tests, papers, etc.)
- Asked a faculty member for information or guidance related to a course you were taking (grades, make-up work, assignments, etc.)

- Assisted a faculty member in teaching a class
- Discussed ideas for a term paper or other class project with a faculty member
- Had a faculty member advise or supervise you on a faculty research project
- Had a faculty member advise or supervise you on a student research project (e.g., Honors thesis, independent study, etc.)
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- Worked with a faculty member outside of class on a committee or project sponsored by a group with which you were affiliated

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This concludes your participation in the study. If you would like a copy of the finished report, expected in May 2010, please enter an email address where you would like it to be sent in pdf format. Any email address you provide will be removed from the database

prior to analysis and will not be used for any purpose other than sending you the final report when it is ready.
<text box>

<submit survey>

Thank you for taking time to respond to these questions. Your input will help create a greater understanding of the interactions between students and faculty members on college campuses. If you have any concerns about the questions or your participation in the study, please contact Peggy Holzweiss at (979) 778-2614 or peggy-h@tamu.edu.

VITA

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Student Development Specialist, Texas A&M University, 1996-2002

Director of Student Activities, Navarro College, 1994-1995

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